Indecon Evaluation of JobBridge Activation Programme

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Contents

Page

Contents

Page

Tables, Figures & Boxes

Page

Tables, Figures & Boxes

Page

Tables, Figures & Boxes

Page

Tables, Figures & Boxes

Page

Tables, Figures & Boxes

Page

Executive Summary

INTRODUCTION AND BACKGROUND

Indecon International Research Economists in association with London Economics were commissioned to complete this report for the Department of Social Protection following an open, competitive tender. It represents an independent, evidence-based evaluation of the suitability, effectiveness and relevance of the JobBridge Activation Programme. The three key deliverables comprised of: (i) a counterfactual impact evaluation to provide an assessment of the differential progression impact of jobseeker participants compared to a control group; (ii) an assessment of jobseeker and host experience and perceptions of the scheme, and (iii) an economic cost-benefit evaluation. The assignment also required an assessment for the future development of the scheme based on the results of the evaluation/research and taking account of developments in the labour market generally.

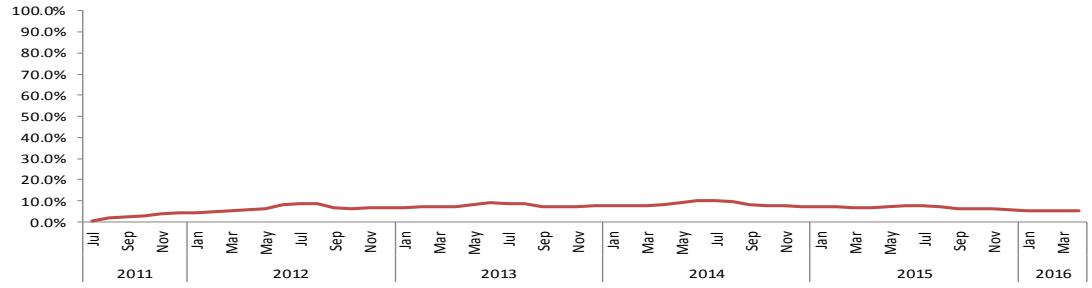
The Government's national internship scheme – JobBridge – was officially launched on 29th June 2011 in a period of very high levels of unemployment. Its aims were to provide those seeking employment with the opportunity to gain valuable work experience; to maintain close links with the labour market; and to enhance their skills and competencies through an internship opportunity, thereby improving their prospects of securing employment in the future. The scheme comprises of six- and nine-month placements in organisations in the private, public, and community & voluntary sectors for unemployed individuals. Interns on the scheme are paid an Internship Allowance, which consists of their existing Social Welfare Benefits in addition to a weekly top-up of €52.50. This allowance was increased from €50 in early 2016.

Labour Market Developments

It is useful to place the JobBridge scheme in the context of developments in the Irish labour market. This is particularly important in assessing the continued relevance of the Scheme. The number of people on the Live Register in Ireland has fallen from 470,284 in July 2011 to just over 307,000 in May 2016. This indicates that major changes have occurred in the Irish Labour market since the JobBridge scheme was introduced.

In reviewing the scheme, Indecon notes that the number of JobBridge participants commencing internships peaked at September 2014 when 1,386 started their internship.[1] Since then, numbers have been falling, other than a brief increase in the summer of 2015. The figure below shows JobBridge internships as a proportion of all employment activation schemes. This indicates that JobBridge internships are only a very small element of the Government's labour market activation schemes.

Percentage of JobBridge Internships of Total Activiation Programmes



Source: Indecon analysis of CSO data

[1] The number of internship places was increased in May 2012 from the initial target of 5,000 to 6,000 places, and again in December 2012 to 8,500 places.

An analysis of the profile of JobBridge interns shows that nearly 25% of interns were under-25 years of age, while approximately 42% were between 25 and 34. Over 30% of interns were 35 years of age or older. Most of the JobBridge interns had been on the Live Register for less than one year but nearly 30% were long-term unemployed. Only a small percentage (9.26%) of host organisations was in the retail/wholesale/hotel/catering sectors. Over two-thirds of host organisations were SMEs employing fewer than 50 persons.

Methodological Approach

In Indecon's opinion, a comprehensive evaluation of the impacts and effectiveness of the JobBridge scheme requires an estimate of the 'counterfactual', i.e., an assessment of what would likely have happened in the absence of the scheme, in terms of participant progression outcomes. This was achieved in this evaluation through utilising a rigorous econometric methodology to estimate treatment effects compared with outcomes for a matched control group (where 'treatment' refers to the outcomes achieved through scheme participation).

One of the features of the Indecon evaluation is that, in addition to the econometric counterfactual analysis, a comprehensive examination of the views of interns and host organisations was undertaken. Importantly, the views of 10,477 interns and of 4,558 host organisations were collated. This exceptionally large sample provides unique insights into the Scheme and is much more reliable than any anecdotal opinions or selective evidence from small sample surveys.

COUNTERFACTUAL IMPACT EVALUATION

After significant testing, Indecon's analysis indicated that the best approach for the counterfactual impact evaluation was to use an Inverse Probability Weighted Regression Adjustment (IPWRA) estimator on the full dataset. We also extensively tested the impacts using a Propensity Score Matching (PSM) estimator and the results and conclusions were not sensitive to the estimation technique chosen. Both the IPWRA and the PSM approaches are aligned with international best practice for the evaluation of labour market initiatives. The relevant policy variable to test the impact of the Scheme in terms of the differential progression impact compared to a control group of non-participants is the Average Treatment Effect on the Treated (ATET). Labour market outcomes are defined in the evaluation as status of "employed" one year and two years from a given date. Regressions were run quarterly. For each of the outcome variables in question, the ATET can be formally written as:

$$ATET = E(\Delta|x, D = 1) = E(y_1|x, D = 1) - E(y_0|x, D = 1)$$

Where Δ is the change between the two groups, y_1 is the outcome for those individuals who have participated in JobBridge while y_0 is the outcome for these same individuals should they not have partaken in JobBridge. D is the variable for participation in JobBridge while x is the collection of independent variables. After weighting/matching and estimation, it is then possible to compare the outcomes between the treatment and control groups. This can be represented as:

$$ATET = E(\Delta|p(x), D = 1) = E(y_1|p(x), D = 1) - E(y_0|p(x), D = 0)$$

The first term refers to the differences in outcomes for the treated group. The second term uses the differences in outcomes for the control group.

The ATET estimator can be written as:

$$ATET = \frac{1}{n} \sum_{i\epsilon[D=1\}} [y_{1,i} - \sum_{j} w(i,j) y_{0,j}]$$

Each treated observation i is weighted or matched to j control observations. In this specification $y_{1,i}$ represents the outcome for the treated individual, i. $y_{0,j}$ represents the employment outcome for the matched unit or units j. w is the weighting applied, where the weights depend on the matching or weighting estimator.

Empirical Evidence on Impact of JobBridge

The evidence from the Indecon modelling indicates that JobBridge has a positive impact of about 12 percentage points on participants' likelihood of finding a job after JobBridge internship completion compared with a suitable control group of individuals who did not participate in JobBridge. The table below outlines the weighted average findings of the two main models for employment progression – one year and two years following the assessment date. Notably, very similar results are obtained from the two alternative models utilised. Specifically, our estimation suggests that matched individuals on the Live Register had a 36.6% probability of securing employment within one year in the absence of JobBridge. With the JobBridge treatment, interns' probability of securing employment within one year increased to 48.4% (i.e., an 11.8 percentage point difference). The implication of this finding is that the Scheme provides additionality, in terms of the probability of becoming employed as a result of participating in JobBridge, of 32%. The results suggest much more positive impacts for JobBridge than has been evident for many other labour market activation programmes. This evidence demonstrates that the Scheme has been effective in enhancing the probability of interns subsequently obtaining paid employment.

Summary of Results – Average Treatment Effect	
	Weighted Average ATET (Percentage Points)
IPWRA Model	
Employment After 1 Year	11.8
Employment After 2 Years	12.3
PSM Model	
Employment After 1 Year	13.0
Employment After 2 Years	12.3
Source: Indecon analysis	

As part of our analysis, we undertook extensive sensitivity modelling on a range of issues. This included testing the impact of different definitions of the treatment variable as well as different model specifications. We also undertook sensitivities to ensure that the results were not sensitive to the previous participation of individuals in other labour market activation programmes, by including a control variable for previous participation in other activation schemes. As a further sensitivity test, we also tested the impact for the IPWRA model results on a sample where we excluded all individuals who had participated in other labour market activation programmes. Notably, these and other sensitivities did not have a significant impact on the ATET estimates.

JOBSEEKERS' AND HOSTS' EXPERIENCE AND PERCEPTIONS OF SCHEME

Progression Outcomes – Evidence from Survey Research

A key issue concerning the experience of jobseekers examined in our research was the progression outcomes to employment. In total, 64.2% of interns were currently employed either with their host organisation or with another employer. 9.6% were pursuing further education or training. 6% were on another employment scheme such as JobsPlus, JobPath, CE or Tús. A further 3.4% have emigrated and no longer live in Ireland. 14.3% of respondents were unemployed and in receipt of a Jobseekers payment, with a further 3.4% were on another social welfare payment scheme. This evidence highlights the high levels of progression to employment for JobBridge interns.

JobBridge Interns - Current Status	
Please indicate which of the following best describes your current situation:	**% of Respondents***
Employed with my JobBridge Host Organisation	26.7%
Employed with another Organisation in same sector as Host Organisation	12.8%
Employed in another sector	24.7%
Total in employment	**64.2%**
Was employed on a short-term contract, which has now ended	3.9%
Pursuing further education or training	6.4%
Pursuing a third-level degree	3.2%
Participating in JobsPlus scheme	1.6%
Participating in JobPath	1.3%
On another employment activation scheme (e.g. CE, Tús, Gateway)	3.1%
Unemployed (in receipt of a Jobseekers payment)	14.3%
On another social welfare payment/inactive	3.4%
Have emigrated	3.4%
Other	7.9%
Source: Indecon and DSP Confidential Survey of JobBridge Interns Note: Percentages do not add up to 100% due to the option of selecting multiple responses	

Furthermore, a very positive finding for the scheme is that over 79% of interns had gained paid employment at some stage since the internship. The table below also shows that 83.2% of third-level graduates have gained paid employment, compared to 71.2% of non-third-level graduates. This suggests that while the education level appears to have an impact on the likelihood of a JobBridge intern gaining paid employment, a majority of those without third-level education also gained paid employment at some stage since undertaking their internship.

Progression Outcomes - If Intern Gained Paid Employment at any Stage since Internship by Level of Education (Percentage of Respondents)			
	All responses	**Third-Level Graduate**	**Non-Third-Level Graduate**
Gained paid employment at any stage since internship	79.1%	83.2%	71.2%
Source: Indecon and DSP Confidential Survey of JobBridge Interns			

Impact on Skills, Work Experience and Training

As part of the evaluation, it was important to examine the extent to which interns did or did not secure quality work experience and/or were provided with new skills. The evidence presented in the next table shows the views of interns on various statements regarding JobBridge. 70.2% of respondents either agreed or strongly agreed that the internship gave them new job skills – the highest level of agreement with any of the statements. However, this has not been the experience of all interns, and over 18% of interns did not feel the scheme had provided them with new job skills. A high percentage of interns also felt the scheme had provided an opportunity to gain quality work experience with 70% agreeing or strongly agreeing with this statement. On the issue of interns' perceptions on whether the internship gave the intern the opportunity to secure formal training as part of their placement, 49% felt this was provided with 33% either disagreeing (17.7%) or strongly disagreeing (15.3%) with this statement. The evidence shows that for many interns the scheme provided them with skills or quality work experience, but that a minority of interns did not receive such benefits from participation.

JobBridge Interns - Levels of Agreement with Statements on JobBridge (Percentage of Respondents)

Please give your level of agreement or disagreement with each of the following statements regarding your JobBridge work experience:	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Gave me new job skills	30.6%	39.6%	11.2%	9.0%	9.6%
Provided opportunity to gain quality work experience	31.1%	38.9%	11.3%	9.0%	9.7%
Opportunity to secure formal training as part of placement	18.8%	30.2%	18.1%	17.7%	15.3%
Improved my self-confidence	22.7%	35.5%	17.6%	10.6%	13.6%
Helped me to identify job opportunities suitable to my abilities	18.7%	35.8%	20.5%	13.3%	11.7%
Improved my chances of gaining employment	24.3%	34.1%	17.6%	11.4%	12.5%
Directly helped my progression into employment	23.1%	26.0%	18.1%	16.6%	16.2%
Kept me close to the job market	17.3%	34.6%	21.7%	13.7%	12.8%
Helped me establish contacts/networks	18.6%	33.3%	20.4%	15.4%	12.3%
Enhanced my career goals	19.4%	32.8%	21.9%	12.9%	13.1%

Source: Indecon and DSP Confidential Survey of JobBridge Interns

Levels of Intern Satisfaction

Another way of investigating the experience of interns is to review their satisfaction with aspects of the scheme. The highest level of satisfaction (67.3%) was with the quality of work experience provided by the host organisation, with 30.4% being very satisfied and a further 36.9% being satisfied (see table overleaf). The value of the JobBridge Top-Up Payment was the aspect with the highest dissatisfaction rates, with 28% of respondents indicating that they were very dissatisfied, and a further 23.4% stating they were dissatisfied with this aspect of the scheme.

JobBridge Interns - Views on Satisfaction Levels (Percentage of Respondents)					
How satisfied or dissatisfied were you with each of the following aspects of your JobBridge internship?	**Very Satisfied**	**Satisfied**	**Neither Satisfied nor Dissatisfied**	**Dissatisfied**	**Very Dissatisfied**
Quality of work experience provided by host organisation	30.4%	36.9%	12.3%	10.1%	10.3%
Level of on-the-job training and development opportunities provided	23.2%	33.4%	17.0%	13.7%	12.7%
Choice, quality and relevance of internship opportunities that fit with my interests/skills	21.7%	38.1%	20.5%	10.7%	8.9%
Creation of networks and contacts	17.2%	32.6%	26.3%	13.1%	10.7%
Extent to which scheme met your expectations	16.9%	33.8%	19.6%	13.9%	15.8%
Impact of internship on my self-confidence / personal development/ job-readiness	21.7%	36.5%	20.8%	8.4%	12.6%
Value of the JobBridge Top-Up Payment	7.3%	19.8%	21.5%	23.4%	28.0%
Host organisation delivered what they were supposed to, as I understood the scheme requirements	26.8%	33.9%	15.4%	10.3%	13.5%
DSP support in getting an internship, and monitoring during internship	9.7%	24.2%	30.1%	16.2%	19.8%
Improvement in employment prospects	19.0%	34.8%	22.5%	10.4%	13.3%
Source: Indecon and DSP Confidential Survey of JobBridge Interns					

Levels of Host Satisfaction

There was a high level of satisfaction with various aspects of the JobBridge scheme amongst host organisations. 51.5% of respondents stated that they were very satisfied with the work performance and engagement of the intern during the internship, with a further 38% stating that they were satisfied with this aspect (see table overleaf). This suggests that organisations secured benefits from their participation in the initiative. In our suggestions for change, Indecon considers the implications of this for the financial contributions of employers to any new initiative. Of note is that 100% of the payments to interns are funded by the Exchequer, despite the benefits which host organisations obtained, although we accept that host organisations incurred costs through participating in JobBridge.

JobBridge Host Organisations - Views on Satisfaction Levels of Aspects of Scheme (Percentage of Respondents)					
Please indicate how satisfied or dissatisfied you were with respect to the following aspects of the JobBridge scheme:	**Very Satisfied**	**Satisfied**	**Neither Satisfied nor Dissatisfied**	**Dissatisfied**	**Very Dissatisfied**
Overall administrative process used by Department of Social Protection during the scheme	47.2%	41.0%	7.8%	3.1%	1.0%
The suitability and job readiness of the prospective pool of interns	23.3%	44.2%	20.6%	9.5%	2.4%
Process for internship vacancy notification/candidate specification/selection	31.7%	47.7%	15.0%	4.5%	1.1%
Reporting and monitoring requirements including standard agreement and monthly returns	38.5%	46.2%	11.6%	2.6%	1.1%
The work performance and engagement of the intern during the internship	51.5%	38.0%	5.9%	3.2%	1.4%
Support for queries, website toolkits etc.	28.8%	40.4%	24.8%	4.4%	1.5%
Source: Indecon and DSP Confidential Survey of JobBridge Host Organisations					

COST-BENEFIT ANALYSIS

Indecon's independent evidence shows that the JobBridge scheme was effective in one of the key objectives of enhancing the probability of securing employment. However, it is also necessary to evaluate the overall costs and benefits of the scheme, adjusted for the levels of deadweight and job displacement. This is particularly important given the need to maximise the impact of scarce public expenditure and the fact that the Exchequer funded 100% of the payments to interns. An ex-post analysis of the impact of the JobBridge scheme on the Exchequer finances, as well an estimation of the net benefit to the economy of the JobBridge scheme was completed. These evaluations have been carried out in line with both the Public Spending Code and the latest European Commission guidance.

The table overleaf summarises the findings of the Indecon analysis from the perspective of the Exchequer, as well as a Cost-Benefit Analysis from the perspective of the wider national economy. It is important to note that Indecon's analysis assumes a 130% shadow price of public funds and an 80% opportunity cost of internship employment. Our analysis also takes account of deadweight and displacement impacts.

As is common in many labour market activation schemes, the counterfactual impact evaluation suggests that most of the benefits in terms of employment outcomes would have occurred in the absence of the Scheme. In other words, high levels of deadweight exist. There is also evidence of some level of displacement in a minority of cases. While host organisations self-declare that an intern is not replacing a job vacancy, an internal audit report completed by the Department of Social Protection indicated that it was not possible for the audit team to verify whether or not an internship is displacing a potential job vacancy. Our research sheds some light on this and suggests that in the absence of JobBridge a minority of hosts would have hired paid employees or employed paid interns.

In our cost-benefit analysis we assume a level of deadweight of 75.6% and a job displacement level of 29.1%. These assumptions used in our base case are at the higher range of levels suggested by our analysis, but we believe this approach is prudent to ensure that the net benefits are not overestimated. We also completed a range of sensitivities based on international evidence of displacement. The results of our base case suggest that if the additional employment of interns (above the levels which would have occurred in any case) only lasts one year or less, the costs to the Exchequer are greater than the Exchequer savings in terms of lower social welfare payments and additional tax receipts. However, if the additional employment lasts for two or more years, there is a net direct financial benefit for the Exchequer.

The direct Exchequer impacts do not take account of the wider potential economic benefits of the scheme in terms of increased gross value added and any higher income for interns once they secure employment, where relevant. If these benefits are taken into account, the scheme is seen as having a positive economic benefit (see table below). In addition to the quantified economic benefits there are likely to be wider additional social and health benefits from increased employment.

Exchequer Impact and Cost Benefit Analyses – Summary of Findings		
	Exchequer Impact	**Economic Cost-Benefit**
Assuming Additional Employment lasts:		
1 year	-€27,605,014	€9,886,361
2 years	€771,966	€15,272,194
Source: Indecon analysis		

SUMMARY OF FINDINGS

The key findings from our analysis are presented in the next table.

Our analysis suggests that the key to understanding the scheme is to see it as a mixture between a work experience/training programme and employment support initiative. JobBridge has benefits in keeping interns close to the labour market, but a majority of interns were dissatisfied with the value of the top-up payment. In addition, problems have arisen in a small number of cases which led to dissatisfaction among a minority of interns which have damaged the overall public perception of the scheme.

Summary of Key Findings

Labour Market Context

1. **Major changes have occurred in the Irish labour market since JobBridge was introduced. The significant decline in unemployment which has occurred since the Scheme was introduced is important in assessing the continued relevance of the Scheme in its current form.**

Counterfactual Impact Evaluation

2. **Compared with a control group of individuals on the Live Register our econometric analysis demonstrates that the Scheme provides additionality in terms of the probability of being employed of 32%.**
3. **The results suggest much more positive impacts in enhancing the probability of subsequently obtaining paid employment than has been evident for many other labour market activation programmes.**

Jobseekers and Hosts Experience and Perceptions of Scheme

4. **On the experience of interns post the Scheme there were high levels of progression to employment with 64.2% of interns currently employed and 9.6% pursuing further education or training.**
5. **Our research with over 10,000 interns indicated that 70% of interns felt that the internship gave them new skills but this was not the experience of all interns and 18% did not perceive they have secured new skills.**
6. **A high percentage of 70% of interns also felt the Scheme had provided an opportunity to gain quality work experience.**
7. **49% of interns felt JobBridge gave them the opportunity to secure formal training but 33% did not receive such training.**
8. **The value of the top-up payment was the aspect with the highest dissatisfaction levels with 28% indicating they were very dissatisfied and a further 23.4% dissatisfied with this aspect of the scheme.**
9. **The majority of interns (53.9%) overall were either satisfied or very satisfied with JobBridge. However, nearly a third of interns were dissatisfied or very dissatisfied. Not surprisingly there were higher levels of satisfaction (61%) among interns who were in employment.**
10. **There was a high level of satisfaction with various aspects of the JobBridge scheme among host organisations.**
11. **89.5% of host organisations were very satisfied or satisfied with the work performance and engagement of the interns.**

Cost-Benefit Analysis

12. **While the Scheme was effective in enhancing the probability of securing employment, it is essential to evaluate the costs and benefits adjusted for the levels of deadweight, job displacement and opportunity costs of employment and public funding.**
13. **The results of our analysis of the impact of the Scheme on the Exchequer suggest that if the additional employment of interns only lasts one year or less, the costs to the Exchequer exceed the Exchequer savings in terms of lower social welfare payments and additional tax receipts. However, if the additional employment lasts 2 years there is a net Exchequer benefit.**
14. **Our overall economic cost-benefit analysis, taking account of increased employment and incomes, indicates a positive economic cost-benefit ratio.**

SUGGESTIONS FOR CHANGE

The next table presents a summary of Indecon's independent opinions on changes which should be considered. These are designed not only to ensure that the positive features of the Scheme, which has led to high levels of progression to employment, are retained, but that JobBridge should be replaced with a new, smaller targeted programme which is more appropriate to current labour market conditions and which addresses factors which led to some interns not securing the benefits which the majority of interns experienced. All of the suggestions have been guided by the empirical evidence presented in this independent evaluation.

Summary of Suggestions for Change
1: JobBridge should be replaced with a new Activation Measure taking account of the current features of the Irish Labour Market and targeted on a narrow group of potential employers.
2: The new Scheme should provide interns with the opportunity for training and potential employment.
3: Consideration should be given to removing the cap in top-up payments as this in effect represents a maximum wage.
4: Employers who participate in the new Scheme should be required to fund part of the Scheme to reduce the cost to the Exchequer and to minimise displacement impacts.
5: There is merit in a significant reduction in the number of interns taken on by public sector organisations unless these organisations have the potential to offer future jobs to interns.
6: The period of trainee work experience which would be supported by public expenditure should be restricted to a maximum of 3 months.
7: After a 3-month period, host companies/organisation interested in extending the internship should be required to pay the interns at least the Minimum Wage.
8: Additional restrictions on eligibility for host companies/organisation should be introduced to minimise the potential for displacement. Increased monitoring is also required. In addition, existing administrative supports which are available to JobBridge interns/host organisations and which have proved to be beneficial should be incorporated into the new Scheme.
9: All host organisations should specify in recruitment advertisements the nature of training to be provided to interns.
10: Organisation who recruit interns who are long term unemployed should be incentivised.

1. **JobBridge should be replaced with a new Activation Measure, taking account of the current features of the Irish Labour Market and targeted on a narrow group of potential employers.**

JobBridge has been a successful and effective labour market intervention. The majority of interns have secured employment and the econometric modelling demonstrates the Scheme has had a beneficial net impact on progression to employment compared to the counterfactual position. However, since the scheme was introduced there has been a dramatic improvement in the labour market which means that a more targeted smaller scale scheme is now appropriate.

At present, internships can continue for up to nine months and this represents a high level of subsidy. Indecon's judgement is that given the levels of deadweight and the existence of some displacement, this is no longer justified in the current labour market. Modifications to the scheme should therefore be introduced by targeting potential employers for participation based on eligibility criteria.

The targeting proposed is designed to reduce the Exchequer costs, minimise deadweight and address issues which have arisen for a minority of interns. In particular, the targeting should be to limit the scheme to those employers who are willing to contribute to the financial cost and are also likely to be in a position to offer employment to interns. The targeting should be such as to exclude employers who are not willing to provide training/skill development.

The scheme in its current format should therefore be replaced with a new scheme. This new scheme should retain the features that have made the scheme effective, and which maintain a close relationship with employment and which secures high levels of job progression.

2. The new Scheme should provide interns with the opportunity for training and potential employment.

A majority of interns were satisfied or very satisfied with the level of on the job training and work experience opportunities provided but some interns were dissatisfied with this aspect. 49% of interns agreed/strongly agreed that JobBridge had provided an opportunity to secure formal training as part of the JobBridge but 33% disagreed or strongly disagreed that such opportunities were provided. This evidence suggests the importance for any new initiative to provide both the opportunity for training and potential employment. There is therefore merit in reinforcing the importance of incorporating training/skill development in all of the host organisations. This issue is also dealt with in the recommendations on advertising of the internship but the branding of the Scheme should also be such as to highlight the necessity for training.

Indecon recognises that the scheme objective is primarily employment progression and that there are limits to the extent to which formal training can be incorporated in the scheme. However, Indecon feels that interns should be provided with some level of skills enhancement as part of the JobBridge internship. Indecon does not envisage formal accredited training as being a requirement of the scheme as this would impact on the attractiveness of the scheme and employers' willingness to take part.

3. Consideration should be given to removing the cap in top-up payments, as this in effect represents a maximum wage.

A feature of JobBridge is that the amount which interns receive is capped regardless of the quality of qualifications or performance of interns. This cap also does not take account of differing labour market conditions in different sectors. This means that host organisations are prevented under the rules of the scheme from offering higher levels of payment to interns.

As outlined in our report, the aspect of JobBridge which received most dissatisfaction by interns was the cap on the level of top-up payments. This reflects the reality that while JobBridge is a training/work experience programme, the interns are making a valuable input, and in some cases may after an initial period be undertaking similar activities to paid employees. As a result, the cap on top-up payments is a cause for dissatisfaction and in effect represents a maximum wage. We are of the opinion that consideration should be given to removing the cap in a revised scheme. The problems with this cap are recognised by both interns and host organisations. Permitting employers to be able to provide payment to interns in excess of the cap was recommended by a number of interns and employers during our research.

4. **Employers who participate in the new Scheme should be required to fund part of the Scheme in order to reduce the cost to the Exchequer and to minimise displacement impacts.**

At present 100% of the costs paid to interns on the JobBridge scheme is funded for by the Exchequer. Indecon believes that in the current labour market this is no longer appropriate. Employers should therefore be required to provide a significant financial contribution to the Scheme. This would mean lower costs for the Exchequer and would help to minimise displacement impacts.

Our cost-benefit analysis indicated that while the Scheme had an overall benefit, the direct costs to the Exchequer were too high if jobs only lasted one year or less. When account is also taken of the benefit to host organisations and the current labour market environment, this suggests the merits of securing a greater financial contribution from employers.

There are two policy options which Indecon considered to secure a greater contribution from employers, namely, an up-front payment contribution per intern to participate in the scheme, or secondly, that employers should be required to directly fund 100% of the top up.

While the option of an up-front contribution would be administratively easier, there are also a number of benefits in the alternative approach of requiring employers to fund 100% of the top-up payments. These include the fact that it would be very hard to set an up-front payment at an appropriate level. If set too high, it would damage the willingness of hosts to participate particularly given uncertainty on whether interns would stay for the full internship period. It could also represent a cash flow problem for SMEs. If, however, the up-front payment is set at a more modest level, the Exchequer costs may be higher than necessary and could incentivise job displacement. Feedback from our research indicated that a number of interns and hosts felt that employers who participated in the Scheme should be in a position to contribute to the costs and to provide higher payments to interns.

5. **There is merit in a significant reduction in the number of interns taken on by public sector organisations unless these organisations have the potential to offer future jobs to interns.**

The design of any new Scheme should have at its centre the interest of interns and should be guided by an evidence based approach. During the research for this evaluation, a number of interns expressed frustration where the host was not in a position to offer subsequent employment, even when the intern had performed well. Much higher levels of overall dissatisfaction with JobBridge were experienced by interns who were subsequently not in employment. Only 19.8% of interns who were hosted by public sector organisations were currently employed with their JobBridge host organisation. The results presented in our analysis showed that a smaller percentage of interns obtained jobs in public sector and voluntary host organisations compared to commercial companies. We therefore believe that as part of the proposed targeting there should be restrictions on the number of interns taken on by public sector organisations unless they have the potential to offer interns future jobs. There may, however, be some limited exceptions to this and public sector experience and training could enhance employability in certain cases (for example in the case of participants in the Crafts Council of Ireland scheme). A higher level of eligibility conditions concerning the level of training provided should be met in such cases. However, where public sector organisations have the potential to offer interns subsequent employment, there would be no reason why they should have any different eligibility criteria than would apply to commercial organisations.

6. **The period of trainee/work experience which would be supported by public expenditure should be restricted to a maximum of three months.**

In the current labour market, the level of state subsidy is too high even though there is a net economic benefit of the current Scheme. Our analysis also provides some tentative evidence that the extension of the length of internship may not have had a significant impact on progression to employment although as most interns were on a nine-month internship it is difficult to be definitive on this. We also believe that significant work experience benefits can be secured within a three-month period and after that interns should become employees if the employers wish them to remain. This would result in higher incomes for interns after three months and would reduce the levels of state subsidies.

In periods of very high levels of unemployment, nine- or even 12-month internships may have been valid but this no longer applies. Indecon accepts that for some interns a longer internship scheme, even in the current labour market, may be beneficial and we therefore considered a policy option to restrict internships to a six-month period. The reasons why Indecon has proposed the shorter three-month period is that despite any potential benefits to interns or hosts, a longer period would double the Exchequer costs of the scheme and may provide a greater incentive for job displacement. Furthermore, it would delay the transition to full time employment for interns. A number of interns, during our research, expressed frustration that the period of internship was longer than three months and that their income was capped for this longer period.

On balance, Indecon recommends a three-month internship but would propose that any host willing to offer a longer term paid internship, should be free to do so. However, for periods longer than three months all of the costs should be borne by the organisation and not by the State. There may also be merit in considering internships of up to six months for participants who have been long-term unemployed.

7. **After a three-month period, host companies/organisations interested in extending the internship should be required to pay the interns at least the Minimum Wage.**

In view of the dissatisfaction among interns with the income earned we believe that after a three-month period any host organisation interested in extending the internship should be required to pay interns at least the minimum wage. In many cases we believe if host organisations are free to pay higher levels than the top up as per our recommendations, market conditions will result in some interns receiving payment levels in excess of the minimum wage even during the internship. Full employment rights should also attach after the three-month period.

8. **Additional restrictions on eligibility for host companies/organisations should be introduced to minimise the potential for displacement. Increased monitoring is required. In addition, existing administrative supports which are available to JobBridge interns/ host organisations and which have proved to be beneficial should be enhanced and incorporated in the new Scheme.**

The evidence presented in this research project showed that most interns were satisfied with the quality of the work experience and many other aspects of the Scheme with the exception of the levels of Top-Up Payment. However, a minority of hosts did not meet the expectations of interns. There is also evidence that for a minority of hosts, job displacement occurred and additional monitoring of eligibility criteria is required. We believe that further restrictions should be placed on such host companies to minimise the potential for displacement. A requirement that the host companies would contribute to the cost of the Scheme and that after three months would be required to pay at least the minimum wage would reduce potential displacement. In addition, we believe that commercial companies that receive four or more interns and do not offer employment positions to any interns, should not be eligible for new positions under the scheme. In addition, specification of the level of training that will be provided should be part of the eligibility criteria. Furthermore, any company which has implemented redundancies in the relevant division should not be permitted to recruit interns under the Scheme and this should be actively monitored. We also recommend that a condition of participation of the scheme is that any hosts that have misstated their eligibility for participation should be required to refund all state payments incurred with interest.

Contact by case officers with interns should take place at the start of the internship, during the internship and near the end to support interns to achieve their objectives. With the proposed revisions, a more targeted programme with a smaller number of host organisations is envisaged. The reduced numbers should enable more active monitoring to ensure full compliance with the eligibility criteria of the proposed new scheme.

Aspects of the existing administrative supports have contributed to the success of JobBridge and should be incorporated in the new Scheme.

9. **All host organisations should specify in recruitment advertisements the nature of training to be provided to interns.**

As the proposed new Scheme would be focused on providing training and building of skills, there is merit in requiring hosts to specify the nature of the training or skill enhancement to be provided. Organisations which do not do this should not be eligible for participation in the new Scheme. This would help address dissatisfaction by a minority of interns with the support for the development of skills as outlined in our evidence.

10. Organisations who recruit interns who are long term unemployed should be incentivised.

Indecon considered whether eligibility should be restricted to those with longer periods of unemployment. The evidence in our evaluation showed that the Scheme had a positive impact on progression to employment for those who were short-term unemployed as well as for the longer-term unemployed. Indecon is of the view that early intervention was a factor in the effectiveness of the Scheme and we note that JobBridge is the only activation measure available to short term unemployed.

Indecon accepts that there is a need for organisations to be incentivised to recruit interns who are in long-term unemployment and we therefore believe such companies should be eligible for pro-rata payments of the JobsPlus Scheme. We believe that this approach is more appropriate than restricting the new internships scheme only to those who have longer unemployment periods. Indecon is cognisant of the potential issues with clarity of mixing different incentives but believes that some additional incentives are appropriate to assist the employment of long-term unemployed individuals. An alternative to the proposed JobsPlus integration may be to provide a longer JobBridge internship period for those participants who are long-term unemployed.

CONCLUSIONS

The suggestions for change in this independent report take account of the empirical evidence concerning the impact of the JobBridge initiative and the experience of interns. Indecon accepts, however, that there may be other ways to achieve the objectives which have guided our suggestions. We believe, however that the proposed new internship/training scheme should retain the successful features of JobBridge which resulted in it being one of the more effective labour market activation schemes and one which resulted in the majority of interns being satisfied with the Scheme. However, radical changes are proposed for a new, more targeted scheme which would address problems which emerged with JobBridge. These are likely to result in a much smaller, targeted scheme and one where more of the costs are funded by employers and less by Exchequer subsidies. The new Scheme should also provide higher levels of payment to interns.

The proposed changes, particularly the higher financial contribution from employers and the restriction of any subsidy to a three-month period, would significantly enhance both the Exchequer returns and the wider net economic benefits of the initiative.

1 Introduction and Background

1.1 Introduction

Indecon International Research Economics in association with London Economics completed this independent report for the Department of Social Protection. It contains an evaluation of the JobBridge National Internship Scheme.

1.2 Background and Terms of Reference

1.2.1 Overview of JobBridge scheme

The Government's National Internship Scheme (JobBridge), was officially launched on 29th June 2011 in a period of very high levels of unemployment. Its aims were to provide those seeking employment with the opportunity to gain valuable work experience, maintain close links with the labour market and to enhance their skills and competencies through an internship opportunity, thereby improving their prospects of securing employment in the future. The scheme represents a small[2] labour market activation scheme based on six and nine-month placements in organisations in the private, public and community and voluntary sectors. Eligible interns are unemployed individuals who have been on the Live Register for at least three months. Interns on the scheme are paid an Internship Allowance, which consists of their existing Social Welfare Benefits in addition to a weekly top-up of €52.50. This allowance was increased from €50 in early 2016.

1.2.2 Terms of Reference for evaluation

The scope of the study was set out in the request for tenders for the design and implementation of an evaluation of the suitability, effectiveness and relevance of the JobBridge Activation Programme. This *inter alia* involved three key deliverables:

Key Deliverable 1

An assessment of Jobseeker and host organisations experience and perceptions of the scheme to update the results from the Indecon study published in 2013. This included an assessment of the ease of use of the scheme, satisfaction with the scheme, whether interns and hosts would recommend the scheme to other jobseekers/host organisations, and recommendations for changes to the scheme.

Key Deliverable 2

A counterfactual impact evaluation to provide an assessment of the differential progression impact (to employment, to further education or training or to another non-jobseeker status) for jobseeker participants compared to a control group of non-participants.

Key Deliverable 3

An economic cost-benefit evaluation.

[2] The number of internship places was increased in May 2012 from the initial target of 5,000 to 6,000 places, and again in December 2012 to 8,500.

The study was also required to provide an assessment of the implications for the future development of the JobBridge scheme based on the results of the evaluation/research and taking account of developments in the labour market generally.

1.3 Irish Labour Market Developments

It is useful to place the JobBridge scheme in the context of developments in the Irish labour market. This is particularly important in assessing the continued relevance of the Scheme. Figure 1.1, shows the increase in the number of people in employment since 2011. The number of people in employment reached approximately two million in each of the last three quarters. At the same time, the number of people on the Live Register in Ireland has fallen from 470,284 in July 2011 to just over 307,000 in May 2016. This indicates that major changes have occurred in the Irish Labour market since the JobBridge scheme was introduced.

Figure 1.1: Employment and Unemployment Levels in Ireland

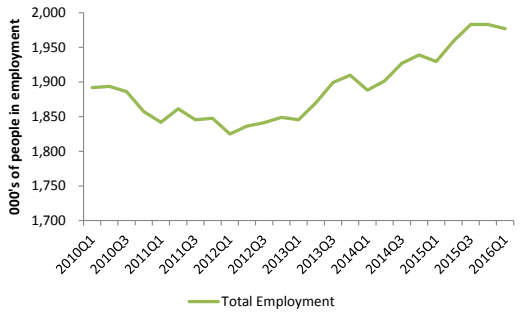
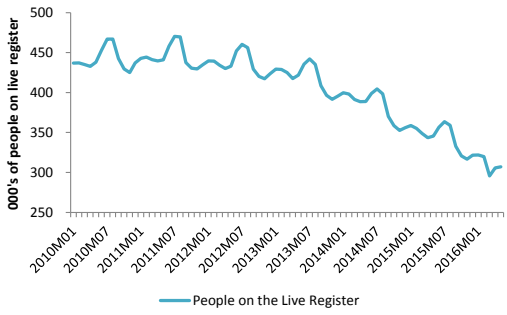
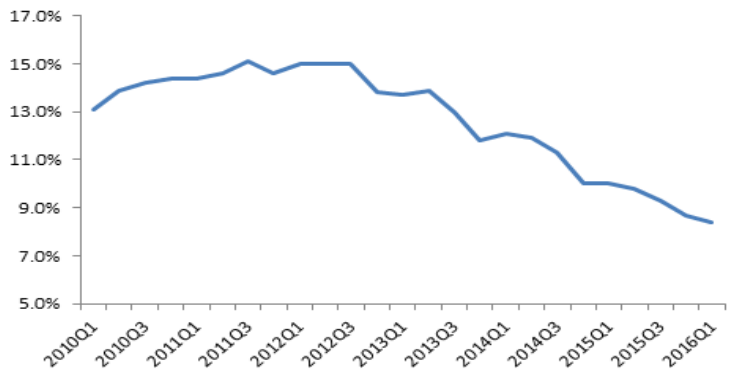
Number of People in Employment	Number of People on the Live Register
	
Source: Quarterly National Household Survey	*Source: Live Register Data*

Figure 1.2 shows the changes in the unemployment rate, and highlights the fall from a high of 15.1%. Unemployment has been below 10% in each of the last four quarters, hitting 8.4% in the first quarter of 2016.

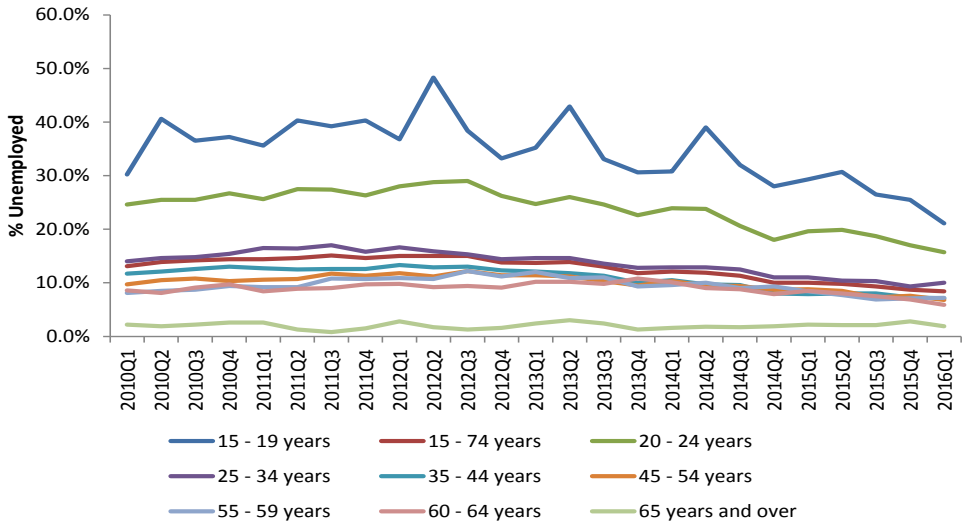
Figure 1.2: The Unemployment Rate



Source: Indecon Analysis of CSO Data

Figure 1.3 shows that unemployment rates are highest amongst 15-19-year-olds and 20-24-year-olds. These two age groups have witnessed a decline in unemployment however, following the general improvement in the Irish labour market.

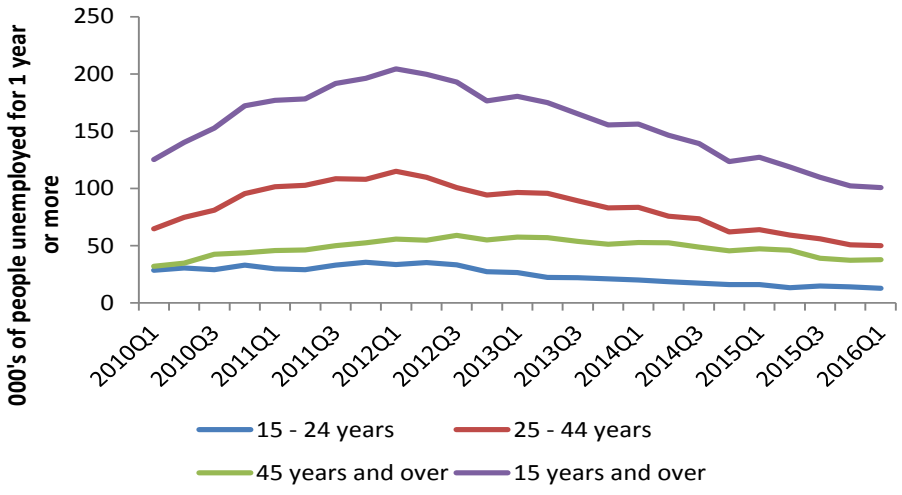
Figure 1.3: Unemployment by Age Group



Source: Indecon Analysis of CSO Data

Long-term unemployment figures are shown in Figure 1.4. The number of people unemployed for one year or more peaked in late 2011/early 2012 but has since fallen below 2010 levels. Significant number of individuals remain long-term unemployed and it is therefore useful to consider separately the Scheme to employment of interns who were previously long-term unemployed.

Figure 1.4: Long-Term Unemployment



Source: Indecon Analysis of CSO Data

1.4 Overview of Methodology for Evaluation

A detailed methodology and work programme was applied to ensure rigorous analysis and assessment of the Scheme. This included extensive primary research with interns and host organisations, as well as a detailed econometric counterfactual analysis. Details of the econometric methodology used are considered in Section 3 of this report, while details of the approach applied to the Exchequer Impact Analysis and Cost-Benefit Analysis are presented in Section 6.

1.5 Report Structure

The remainder of this Interim Report is structured as follows:

- Section 2 analyses the uptake of JobBridge placements and presents a profile of the interns and host organisations on the scheme, in terms of the number of participants and their socio-economic characteristics, and the characteristics of host organisations.
- Section 3 outlines Indecon's methodology for the counterfactual impact assessment.
- Section 4 presents the findings from the counterfactual impact analysis.
- Section 5 contains an assessment of additional evidence on the progression outcomes for participants. It also assesses satisfaction levels among interns and host organisation with different aspects of the scheme.
- Section 6 presents our cost-benefit analysis.
- Finally, Section 7 summarises Indecon's independent conclusions and recommendations.

1.6 Acknowledgements and Disclaimer

Indecon would like to acknowledge the assistance and inputs to this evaluation provided by a number of individuals. We would like to acknowledge the assistance provided by officials within the Department of Social Protection. Particular thanks are due to Paul Carroll, Kasey Treadwell Shine, Hugh Cronin, Terry Corcoran, Eric Doyle, Ciaran Judge, Saidhbhin Hardiman, Sheena Stewart, Claire Cummings and Aidan Mullally. We are also appreciative of the inputs of John McKeon of the Department and Jessica Lawless of the Department of Public Expenditure and Reform.

We would also like to thank the members of the Labour Market Council Evaluation Sub Committee for very valuable inputs. This Sub Committee is chaired by Professor Philip O'Connell and includes John Martin, John Sweeney, Brid O'Brien and Peter Rigney. We also benefitted from inputs from the members of the Labour Market Council and its Chairman Martin Murphy.

Thanks are also due to the independent international external reviewer Professor Steve McIntosh, University of Sheffield who completed a peer review of the econometric counterfactual analysis.

Last but not least, we would particularly like to express our gratitude to the very large numbers of JobBridge participants and host organisations who took the time to complete the surveys and who have provided valuable inputs to the evaluation.

The usual disclaimer applies and responsibility for the analysis and findings in this independent report remains the sole responsibility of Indecon.

2 Scheme Uptake and Profile of Participants and Host Organisations

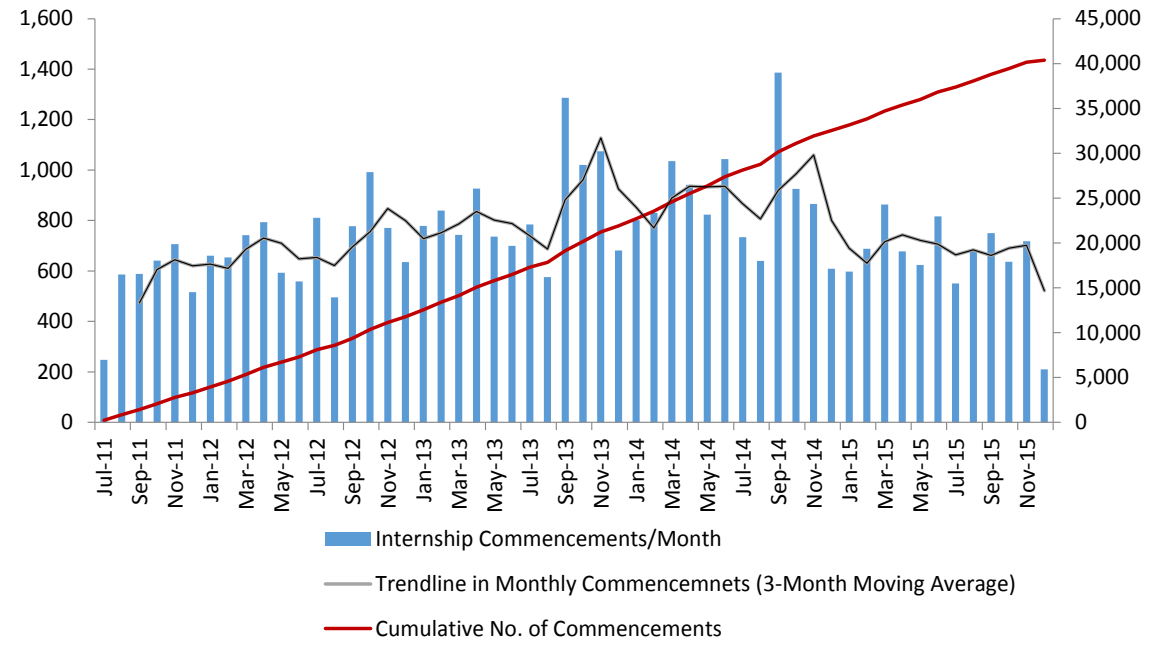
2.1 Introduction

This section considers the level of uptake and the profile of participants and host organisations. The profile of interns *inter alia* includes an analysis of the age profile and the levels of persons previous employed.

2.2 Scheme Uptake

Figure 2.1 shows the number of JobBridge participants that started their internships in each month since July 2011, the beginning of the scheme. The peak starting month was September 2014, when 1,386 participants started their internship. The average number of internships starting in a month is 748, with 10 months in 2015 being below this figure. The cumulative total of JobBridge internships started reached 40,000 in November 2015.

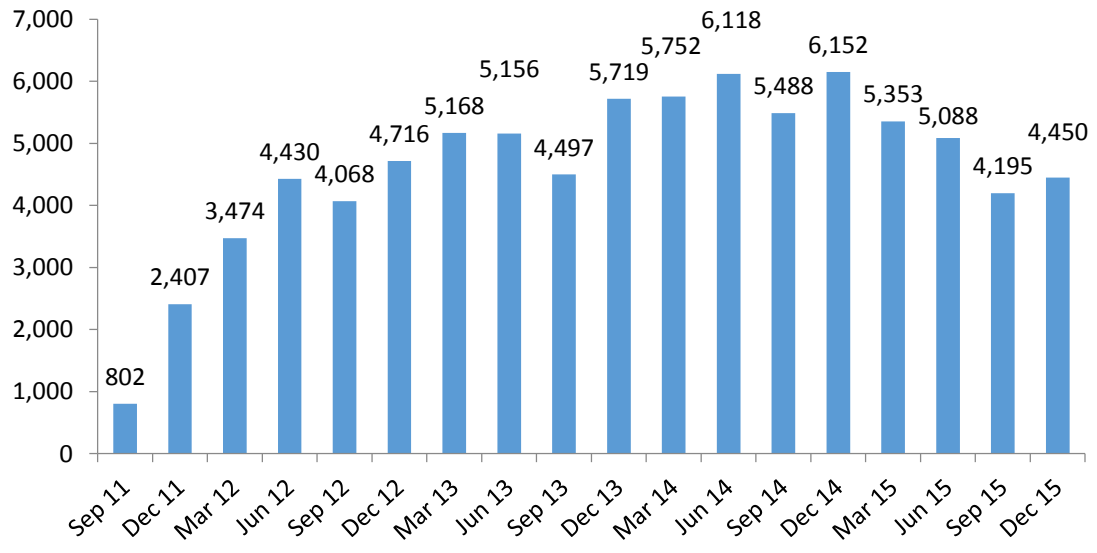
Figure 2.1: Number of JobBridge Participants Commencing Internships



Source: Indecon analysis of data from DSP/JobBridge database

Figure 2.2 shows the number of JobBridge participants on internship placements underway in certain months of the scheme since September 2011. December 2014 had the highest number of JobBridge internships out of each of the available months (6,151). This was followed by June 2014, in which 6,118 internships were participants on the scheme.

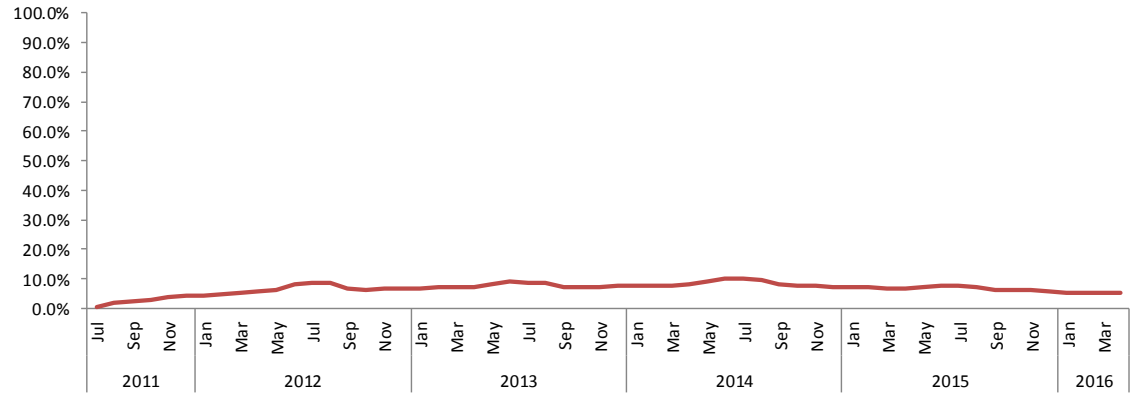
Figure 2.2: Number of JobBridge Participants on Internship Placements



Source: Indecon analysis of data from DSP/JobBridge database

Figure 2.3 shows JobBridge internships, as a proportion of all employment activation schemes. This suggests that JobBridge internships are only a small element of the Government's activation schemes. The data also shows that numbers have been falling since 2014 other than a brief increase in the summer of 2015.

Figure 2.3: Percentage of JobBridge Internships of Total Activiation Programmes



Source: Indecon analysis of CSO data

The table overleaf presents a breakdown by region of the number of internships commencing. Dublin has the highest number of commencements (12,920), which is 32.01% of the total number of internships commenced. The South-East (13.71%) and South-West (12.51%) regions are the two next largest regions in terms of number of commencements.

Table 2.1: Regional Breakdown of Internship Commencements		
Region	**No. of Commencements**	**% of Total**
Dublin	12,920	32.01%
Midlands Region	3,632	9.00%
Mid-West Region	3,712	9.20%
North-East Region	3,317	8.22%
North-West Region	2,132	5.28%
South-East Region	5,534	13.71%
South-West Region	5,049	12.51%
West Region	4,071	10.08%
Total	**40,367**	**100%**
Source: Indecon analysis of data from DSP/JobBridge database		

2.3 Socio-Economic Profile of Scheme Participants

The socio-economic profile of participants is useful aid in assessing the reach of the scheme, its influence on progression outcomes and its impact. Of particular relevance are the following aspects:

- The gender of JobBridge participants;
- The age profile of scheme participants;
- The level of educational attainment among participants; and
- Unemployment experience prior to participation in JobBridge.

Table 2.2 contains a breakdown of the gender of JobBridge participants. Just over half of (20,460 of the 40,367) participants were male, with the remaining 49.32% being female.

Table 2.2: Gender of Participants		
Gender of Interns	**No. of Participants**	**% of Participants**
Male	20,460	50.68%
Female	19,907	49.32%
Total	**40,367**	**100%**
Source: Indecon analysis of data from DSP/JobBridge database		

Table 2.3 presents a breakdown of the age profile of JobBridge participants. Nearly 25% of interns were between 20 and 24 and a further 42.16% of interns were aged between 25 and 34. However of note is that over 30% of interns were 35 years or older.

Table 2.3: Age Profile of JobBridge Participants		
Age Band	**No. of Participants***	**% of Participants**
15 to 19	1,105	2.74%
20 to 24	10,034	24.86%
25 to 34	17,020	42.16%
35 to 44	7,287	18.05%
45 to 54	3,774	9.35%
55 and over	1,147	2.84%
Source: Indecon analysis of data from DSP/JobBridge database		

An analysis of the length of employment of interns prior to undertaking a JobBridge internship is presented in Table 2.4. While most of the JobBridge interns have been unemployed for less than one year, it is noteworthy that nearly 30% represented those who had been long-term unemployed.

Table 2.4: Length of Unemployment Prior to Undertaking A JobBridge Internship	
Length of Unemployment Spell	**Percentage of JobBridge Participants**
Less than one year	70.1%
Between 1 and 2 years	17.0%
2 years or over	12.8%
Source: Indecon analysis of JLD	

2.4 Profile of JobBridge Host Organisations

Table 2.5 shows the sectors in which JobBridge host organisations operate, only 9.26% were in retail/wholesale/hotel/catering sectors while 9.79% were in the other services.

Table 2.5: Sector of JobBridge Host Organisation		
Sector of JobBridge Host Organisation	**No. of Internships**	**% of Internships**
Chemicals Manufacturing	174	0.45%
Cleaning	142	0.36%
Clothing & Footwear Manufacturing	57	0.15%
Construction	1,057	2.71%
Engineering	987	2.53%
Financial Services	1,281	3.28%
Food/Drink/Tobacco Manufacturing	789	2.02%
Information Technology	2,245	5.75%
Other Services	27,261	69.79%
Printing & Paper	448	1.15%
Retail/Wholesale/Hotel/Catering	3,618	9.26%
Security	168	0.43%
Textiles Manufacturing	79	0.20%
Transport/Communications	757	1.94%
Total	**39,063**	**100%**
Source: Indecon analysis of data from DSP/JobBridge database		

The types of JobBridge host organisations are shown in Table 2.6 overleaf. The majority of organisations were private bodies (70.18%). The education sector accounted for 3,289 internships (8.21%). Commercial semi-state bodies hosted the fewest number of internships (230) out of all of the types.

Table 2.6: Type of JobBridge Host Organisation		
Type of JobBridge Host Organisation	**No. of Internships**	**% of Internships**
Civil Service	304	0.76%
Commercial Semi State	230	0.57%
Community	2,088	5.21%
Education Private Sector	428	1.07%
Education Sector	2,861	7.14%
HSE	374	0.93%
Local Authority	725	1.81%
Non-Commercial Semi State	414	1.03%
Private Body	28,139	70.18%
Public Body	2,685	6.70%
Voluntary	1,849	4.61%
Total	**40,097**	**100%**
Source: Indecon analysis of data from DSP/JobBridge database		

Over two-thirds (67.18%) of host organisations were SMEs employing fewer than 50. 17.87% of host organisations had 250 or more employees.

Table 2.7: JobBridge Placements by Size of Host Organisation		
Host Organisation Size by No. of Employees	**Number of Participants***	**% of Participants**
0 - 49	26,771	67.18%
50 - 249	5,958	14.95%
250 -	7,123	17.87%
Total	**39,852**	**100%**
Source: Indecon analysis of data from DSP/JobBridge database		

2.5 Summary

- The number of JobBridge participants commencing internships peaked at September 2014 when 1,386 started their internship. The JobBridge scheme represented a relatively small percentage of the numbers on Government's Labour Market Activation Programmes.
- While most of the JobBridge interns have been unemployed for less than one year, it is noteworthy that nearly 30% represented those who had been long term unemployed.
- Nearly 25% of interns were between 20 and 24 and a further 42.16% of interns were aged between 25 and 34. However of note is that over 30% of interns were 35 years or older.
- Only a small percentage 9.26% host organisations were in the retail/wholesale/hotel /catering sectors.
- Over two-thirds of host organisations were SMEs employing fewer than 50.

3 Methodological Approach to the Counterfactual Impact Evaluation

3.1 Introduction

Our analysis includes a rigorous Counterfactual Impact Evaluation (CIE) of the JobBridge scheme. This CIE involves estimating what 'would have happened otherwise' to JobBridge participants. The primary objective of the CIE is to assess the impact of JobBridge on labour market outcomes via a comparison of labour market outcomes for JobBridge interns and matched a control group of similar non-participants from the Live Register using the quantitative methods of programme impact evaluation.

The key policy question which the CIE analysis seeks to answer is to what extent participation in the JobBridge scheme improved individuals' employment prospects, relative to their chances of obtaining employment had they not participated in the Scheme. It is noteworthy that individuals choose to participate in the Scheme, and random assignment is not possible. Further, *a priori* theory would suggest that a variety of factors, such as motivation, ability, and labour market signalling might be correlated with self-selection and outcomes (finding a job).

The CIE analysis addresses this policy question by estimating models which control for treatment probabilities, a variety of potential covariates or explanatory variables; whether models of outcomes with covariates are also included is possible and depends on the exact treatment model specified.

Indecon investigated a number of potential estimation procedures and uses the models which we judge give the most reasonable and robust estimates of the treatment effects on the treated, i.e., the additional impact of JobBridge.

The results of the estimation fundamentally provide an estimate of the average treatment effect on the treated (ATET). Other aspects of the evaluation, such as the estimation of 'deadweight' then can be taken directly from the evaluation/econometric results. In this case, the impact of the JobBridge Programme is in fact the ATET; and then the deadweight is the probability of getting a job or avoiding unemployment without the treatment. The treatment in this case is defined as participation in JobBridge.

For the CBA aspect of the overall evaluation of the JobBridge Programme, the CIE analysis also provides valuable inputs. The econometric CIE analysis provides estimates of the level of deadweight associated with the JobBridge Programme. This is discussed in more detail in the chapter relating to the cost-benefit aspect of the evaluation.

This chapter outlines the data used by Indecon in the counterfactual impact evaluation. We outline how the dataset was checked and restructured for use in the CIE before then providing some details on the key variables in the dataset and some summary statistics. Following this, we present our methodological approach. This chapter discusses in detail Indecon's methodological approach to the completion of the counterfactual impact evaluation.

3.2 Datasets Utilised

The data made available to Indecon for the purposes of the carrying out the CIE is drawn from different datasets. These datasets are:

- The Jobseekers Longitudinal Database (JLD); and
- The JobBridge Administrative Dataset.

Additional data is also linked to these datasets from the Revenue Commissioners.

The JLD contains data for individuals in both the treatment and control groups while the JobBridge administrative dataset contains only information related to the treated individuals and their time on the JobBridge Programme. This latter dataset, however, contains a richer set of information on individuals, such as their type of job and sector.

The Jobseekers Longitudinal Dataset (JLD) is a Departmental dataset which tracks people's social welfare claims and employment histories over time. It covers any individual who made a jobseeker or one-parent family claim with the Department since 2004. It brings together data from a number of other key administrative data sources.

The JLD contains variables which display or can be used to derive individuals' gender, age, marital status, nationality, previous occupation, employment and unemployment histories (including the timing, duration and number of episodes), unemployment training history (type, duration and number of episodes), benefit type, number of child dependents and geographic location.

A unique, but fully anonymous ID number is also included as a variable allowing the anonymous tracking of individuals over time. A more detailed discussion of the relevant variables is included later in this chapter. The JLD dataset made available to Indecon contained 10,494,958 observations for 1,930,516 individuals. It is important to note that the JLD in its raw form is an 'ID-spells-based' dataset; that is to say, a row is a unique ID *and* 'spell' (where a spell is an employment/unemployment/training episode). Thus the raw data is structured in such a way that each observation or 'row' in the data represents a different 'episode' of employment, unemployment, training, etc. for each individual. Each of these episodes could be of varying lengths and there could be any number of episodes attributed to any given individual. It is also possible to have embedded episodes (for example, a certain community employment episode might be embedded (contained) within a longer unemployment episode).

The JobBridge administrative dataset contains detailed information for each of the treated individuals (i.e., those individuals that took part in JobBridge). The JobBridge administrative dataset contained variables including:

- Sector of the internship;
- Size of the host organisation;
- Geographic location of the internship; and
- The education level required for the internship.

This dataset was merged with the JLD by Indecon using a shared unique identifier for individuals.

Indecon has also received additional data from the DSP from the Revenue Commissioners that provides information on annual incomes of individuals over the examination period. This data is also linked to the JLD using the unique identifier.

It should be noted that while the combined JLD, JobBridge Administrative Dataset and Revenue data provide a rich dataset in terms of employment history, earnings, the nature of JobBridge episodes and other socio-economic factors, there remain a number of weaknesses in this combined dataset. A key limitation of the JLD is that it does not contain any data on the education level of individuals. While the JobBridge Administrative data does contain a variable relating to the minimum level of education required for each internship, the dataset as a whole lacks a comprehensive education variable. This is an important weakness of the data to note given the role of education in determining employment prospects. In our survey analysis of interns, we however examined how the progression to employment varied by levels of education.

A further limitation of the JLD is that individuals who emigrate or leave the labour force entirely will not be captured in the JLD. Similarly, any engagement by individuals in the black economy or other sources of income is not captured by the JLD.

It is also important to note that that people may be in receipt of government payments that are not captured in the JLD. For example, the Department of Social Protection has informed us that people may be on disability payments and that this is not captured in the JLD. This is relevant given that people could be eligible for participation in JobBridge based on time spent on disability allowance.

3.3 Variables

This section discusses in more detail the key variables included in our dataset. The dataset contains monthly variables for many of these explanatory factors from January 2010 to December 2015. This implies that there are 72 monthly variables for each explanatory variable that changes on a monthly basis.

Indecon's restructured dataset contains the following variables on a month-by-month basis over the relevant time period:

- Status (a categorical variable/integer from 1-6);
- Duration of current status (days);
- Previous status (a categorical variable/integer from 1-6);
- Length/duration of previous status;
- Marital status;
- Nationality;
- A binary variable indicating whether or not the individual is eligible for JobBridge in that month;
- Average weekly payment received if on the Live Register in the given month;
- Number of child dependents;
- Previous occupation if unemployed;
- County;
- Outcome in terms of status:
    - one year on from given month;
    - 18 months on from given month;
    - two years on from given month.

- Variable indicating the percentage of the previous year spent employed;
- Variable indicating the percentage of the previous year spent unemployed;
- Variable indicating the percentage of the previous year spent classified as other;
- Variable indicating the percentage of the previous five years spent employed;
- Variable indicating the percentage of the previous five years spent unemployed;
- Variable indicating the percentage of the previous five years spent classified as other;
- A binary variable indicating whether the individual is partaking in JobBridge in a given month; and
- Total earnings in the previous year.

We further derived a number of variables for sensitivity analysis, including:

- An indicator variable for if an earner was a 'high' earner
  - This variable was equal to 1 if the person's earnings in the previous year were at or over the 75th percentile of the distribution of earnings for age and occupational categories; and zero otherwise.
- An indicator variable for if the person was long-term unemployed
  - This variable was coded as equal to 1 if the person was unemployed for at least one year anytime in the 18 months preceding the month in question, and zero otherwise.
- Interaction variables
  - We also tested a number of interaction variables, such as age AND sex, age AND number of children, as well as previous duration AND status. In general, while these were sometimes statistically significant in outcome and treatment logits, they did not have large or significant impacts on the overall estimated ATET.

What follows here are some indicative summary statistics for the main variables.

The following table outlines the breakdown of statuses in the JLD and provides an illustration of the prevalence of each status in the dataset. Status is the variable which describes the nature of a person's spell in the JLD. This table indicates that nearly half of the spells in the dataset are employment episodes while 42% of episodes are episodes of unemployment. Only 0.4% of the episodes included in the JLD are episodes of participation in JobBridge.

Table 3.1: Breakdown of Episodes by Status in the JLD

Status	Observations	Percentage of Total Observations
Employed	4,345,008	45%
Unemployed - UA	1,699,184	18%
Unemployed - UB	2,345,916	24%
Education/Training	440,852	5%
JB Internship	40,368	0.4%
Other	727,212	8%
Total	**9,598,540**	**100%**

Source: Indecon analysis of JLD

The duration of current status variable reports on a month-by-month basis the length of time in days that the individual has spent in their current status. The following table illustrates the average length in days of each status in the JLD.

Table 3.2: Average Status Length in Days

Status	Average Length in Days
Employed	1,313
Unemployed - UA	716
Unemployed - UB	438
Education/Training	152
JB Internship	88
Other	983

Source: Indecon analysis of JLD

The previous status variable is coded identically to the status variable but indicates what the status immediately preceding the current status of an individual was in any given month. This variable is important as it identifies transitions made by individuals as well as providing an element of the employment history of an individual.

This variable contains data on the total duration of the previous status of an individual prior to the commencement of their current status.

The JLD contains information on marital status in the form of a categorical variable with some 16 different categories from married, single, widowed, single partner, etc. Initial testing with logits of treatment and outcome suggested marital status was not providing significant explanatory power beyond a binary coding (married and single).

We received the definitions of nationality for integers coded to match nations.

We then grouped nationalities into eight main groups:

- Irish
- English speaking UK Commonwealth plus USA
- Other OECD
- Eastern Europe
- Asia
- South and Central America
- Africa
- Middle East

We investigated the usefulness of a variety variables and coding of covariates using logit regressions on treatment variables. In general, there is a possibility of trade-offs in the estimation from including too many covariates, especially categorical variables, as either estimation precision can be reduced or problems with the regression can arise if categories have zero treated or non-treated individuals.

For nationality, preliminary investigation suggests additional explanatory power is not added beyond using Irish and non-Irish categories. The breakdown of individuals in the final dataset by nationality is outlined in the table below.

Table 3.3: Nationality of Individuals in the JLD

Nationality	Number of Individuals	% of Total Individuals
Non-Irish	388,954	24%
Irish	1,199,655	76%
Total	**1,588,609**	**100%**

Source: Indecon analysis of JLD

This is a binary variable which is coded as 1 if an individual is classified as eligible for participation in JobBridge in a particular month, e.g., March 2013, and zero otherwise. This variable identifies on a monthly basis the number of people in the sample who could potentially be participants in JobBridge. Eligibility is defined as unemployed for at least six months in the period prior to the start of the JobBridge internship. We believe this may be an important matching covariate that would explain treatment and is important in ensuring comparability with a control group.

This is a continuous variable, in euros, giving the average social welfare payment an individual was in receipt of in a given month. While the variable is continuous, for the purposes of the summary statistics displayed in the following table it has been broken down into categories. This table outlines the number of episodes for which a social welfare payment of some description was received by the size of that payment. It is also noteworthy that this payment is likely co-linear with a number of factors, such as number of children, and age given the lower unemployment payments for those under 26 years of age.

Table 3.4: Social Welfare Payments

Size of Weekly Payment	Number of Episodes	% of Total Episodes
Less than €150	1,236,928	26.8%
€150-€200	2,035,680	44.2%
€200-€250	822,546	17.8%
€250-€350	300,716	6.5%
€350-€450	204,862	4.4%
€450-€550	8,381	0.2%
More than €550	325	0.0%
Total	**4,609,438**	**100%**

Source: Indecon analysis of JLD

This continuous variable records the number of child dependants which each individual has indicated in a given month. We further coded this to be the average number over the course of JobBridge and the time period in study. This was to eliminate any potential problem with missing data as well as the fact that the number of children was not changing for the vast majority of participants over the course of a 2-3-year period.

The previous occupation variable is a categorical variable which provides the sector of the previous employment of an individual. This information is only available for each unemployment episode and as such a large number of the observations are missing values. However, the previous occupation of an individual who is currently unemployed may be an important factor in determining future employment outcomes or participation in JobBridge.

The variable coded for Occupation in the dataset also presents particular challenges. In particular, a few aspects of this variable are noteworthy. First, it is the previous occupation prior to a spell of unemployment, so it is reported to the case officer when the person makes a claim from the previous spell. The variable is also somewhat sparsely coded, with only 49% of observations coded as opposed to missing. Further, with the conversion to our time-based dataset, the coding of the variable over time means that observations will fall in and out of the dataset, as a person goes in and out of spells, and if the observation is coded or not coded during particular spells.

On the other hand, occupation could be a critical variable in terms of either predicting treatment or outcome and thus *a priori* would be a strong candidate for inclusion in the treatment/outcome model.

The variable itself is coded with integer values from 1-99. Broadly, a value less than 40 indicates managerial and professional categories and values of 40 and above indicate non-professional labour and services occupations, with 99 indicating not categorised or known.

We continued options for both including the variable as a covariate or explanatory variable in both treatment and outcome models later. Again, initial testing with logits suggested a binary 'professional' and 'non-professional' coding was best. We further tested stratification by broad occupation type and discuss this later.

The county variable records the location/county in Ireland where the individual received their payment during an unemployment episode in a given month. This categorical variable is coded from 1 to 28 and each integer represents a different county in Ireland.

Locational variables for the location of the office where the allowances recipient was making applications are coded in the JLD. A number of challenges were presented by this as sometimes persons are coded according to a national scheme (coded as SWA) instead of on a county-by-county basis.

We created a variable for the modal location over the evaluation period. This also has the desirable property that a variable which is sparsely coded (e.g., not coded for every spell) will not become missing – when missing might be correlated with outcomes, such as being employed. This does not account for people who move jurisdiction over the evaluation period. However, given the prevalence of the SWA designation, Indecon has judged it preferential to have a modal location indicator compared to the alternative of having no means of identifying location for all those observations for which the episode is coded SWA.

An important aspect of any counterfactual impact analysis is defining outcomes. A factor in measuring outcomes with any active labour market activation programme is consideration of the well-known potential for lock-in effects (Caliendo, 2005). In this case, the person receiving the training or internship necessarily must reduce search effort and related factors during the treatment period. It is therefore important to evaluate treatment effects sufficiently after the treatment has been completed but not so-long as to where treated individuals might experience regression to their mean pre-treatment outcome probabilities.

To take account of these factors we defined outcome variables to include outcomes one year, 18 months and two years on from a given month/point in time. The outcome variables are coded identically to the status variable and report the status of an individual the relevant period of time after a given month. The inclusion of these outcome variables on a monthly basis is important as they are likely to be dependent variables in the analysis of the determinants of outcomes and given the role that the JobBridge Programme plays in changing employment outcomes.

Our preferred outcome variable is employment, that is to say, the individual is employed (Y=1), and zero otherwise. In our main results presented subsequently, 'employed after one year' is the focus of the analysis. It should be noted that improving the employment prospects of those on the Live Register is one of the primary objective of the scheme. It may be important to test the sensitivity of the analysis to various issues in the data, as well as the sensitivity to the definition of outcome. Therefore, we defined an alternative outcome as 'not unemployed', which is coded as 1 if the individual is not in receipt of a welfare payment/is not on the Live Register, and zero otherwise.

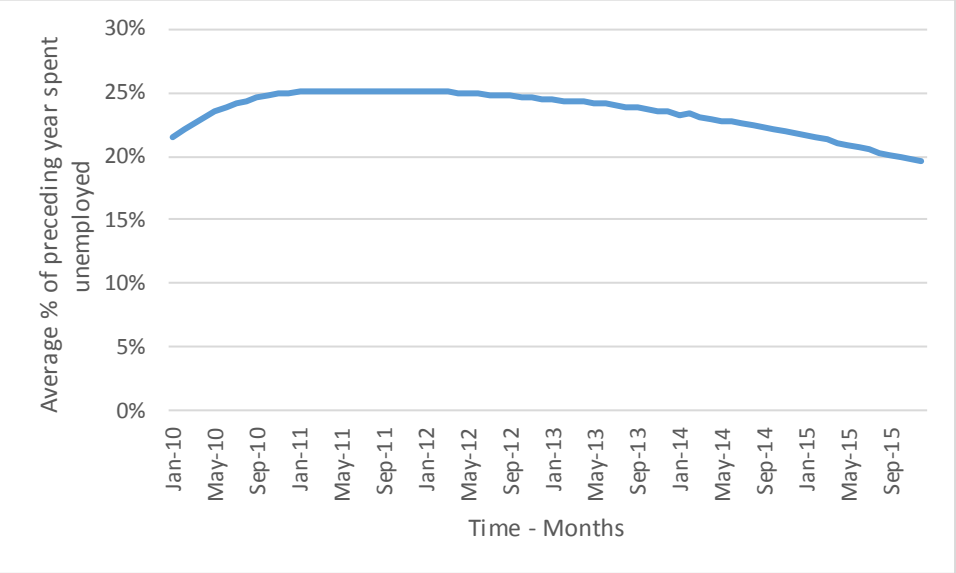
The final dataset also includes a number of variables which aim to capture the recent employment history of individuals. These variables include:

- A variable indicating the percentage of the previous year spent:
  - employed;
  - unemployed; and
  - other.
- A variable indicating the percentage of the previous five years spent:
  - employed;
  - unemployed; and
  - other.

These variables are continuous and represent values for the percentage of the previous year/five years an individual has spent in each of the above statuses. Figure 3.1 charts the average percentage of the last year spent unemployed across individuals in the JLD on a monthly basis between 2010 and 2015. This chart shows the evolution of the labour market over the one-year period as the average percentage of time spent unemployed first rises and then beings to fall again in recent years and months.

These variables are important indicators of employment history and are key independent variables for subsequent analysis of the drivers of labour market outcomes and the impact of JobBridge.

Figure 3.1: Average Percentage of the Last Year Spent Unemployed Over Time



Source: Indecon analysis of JLD

The final dataset includes a binary variable which is coded as 1 if an individual is participating in JobBridge in a particular month and zero otherwise.

Indecon was also provided with earnings data from the Revenue Commissioners that has been linked to the JLD. The earnings variables included in the final dataset are only available on an annual basis and not a rolling monthly basis.

Indecon has derived this variable using the annual earnings variable discussed above. This variable is equal to 1 if the person's earnings in the previous year were at or over the 75th percentile of the distribution of earnings for age and occupational categories, and zero otherwise.

This variable has been derived by Indecon and aims to provide a further insight into the employment history of individuals in the JLD. This variable was coded as equal to 1 if the person was unemployed for at least one year anytime in the 18 months preceding the month in question, and zero otherwise.

3.4 Coding of Additional Variables

Following the construction of the final dataset in its month-by-month variable and ID-based observational format, it was then necessary to generate a number of additional variables for use in the analysis.

In particular, it is important to be aware of how the success and treatment variables are defined in our analysis. Indecon has carried out a number of sensitivity tests in which the exact coding and definition of these variables is altered.

Our preferred definition of 'success' is to be employed one year subsequent to undertaking a JobBridge internship. The one-year period is necessary to account for well-known lock-in effects, where search intensity is reduced while undertaking an activation programme. While this is our preferred 'success' definition, Indecon has also defined a number of alternative 'successful' outcomes in a number of ways. We include a variable which defines success as being employed two years on from a given month as well as success variables which define success as not being unemployed one or two years on from a given point. These alternative definitions enable a number of sensitivities to be run on the results of the main model.

We present a summary of the success variables included in the final dataset and the nature of their coding below.

Employment: Coded as successful if the individual is in employment

- One year after the status in a given month (status_1yr) = 1
- Two years after the status in a given month (status_2yr) = 1
- For both of the above, if not "EMPL" on JLD, then zero.

Not unemployed: Coded as successful if the individual is in not unemployed

- One year after not in receipt of UA or UB then = 1
- Two years after status month then if not UA or UB status = 1
- We tried both coding missing as a 0 and as 'missing', but decided on coding missing as missing in the end, although the results were broadly not sensitive to this choice.

We also examined success in terms of education or training, as this we believe would be a useful cross and check and potentially useful for a falsification test.

In education or other training

- One year after the status month (status_1yr) = 1 in education/training
- Two years after the status month (status_2yr) = 1 if in education-training
- For both of the above, If not "in education/training" on JLD, then zero.
- Missing is coded as missing.

It is important to note that in our analysis we match the treatment and control observations on variables such as eligibility and previous status and previous duration so to the greatest extent possible, the previous spells of unemployment and statuses are matching variables, and are controlled for in our analysis.

Treatment is initially defined globally in terms of the overall dataset so that any individual who was part of the JobBridge administrative data provided by DSP is coded as 'treated'. While this is a useful starting point, it should be noted that in terms of the overall task as defined in the terms of reference; to study potential changes over time in the effectiveness of the Programme, such a simple treatment definition is insufficient as one does not distinguish between treated individuals at any point in time and those who will subsequently receive treatment. With this in mind, treatment needed to be defined given any point in time (e.g., a month-year) during the period of analysis.

Using the status variables from the spells data contained in the JLD in its original form, what was then done was to define treatment in one variable in terms of at any given point in time (month and year) and in another variable as after a minimum number of months of JobBridge has been completed.

An initial 'actual' treatment variable specific to each period (month and year) was thus created for each identifier; the 'actual' treatment variable was equal to one if the person's status was 'in JobBridge' for that month, and zero otherwise. This variable is sufficient to indicate if treatment 'was taking place' at any given point in time, but still not sufficient to define if the 'treatment' had been completed at any point in time, as one should consider if the internship had been completed sufficiently.

In constructing the variable identifying whether or not an individual had completed a sufficient internship period to be considered 'treated' for the purposes of the CIE analysis, Indecon chose four months as the number of months required to be classified as treated. We also conducted a number of sensitivities of variations to this definition. Additional detail and discussion on these sensitivities can be found in the following chapters.

We also note that a choice should be made so as to consider estimating based on treatment 'at some point in time' or 'any time up to some point in time' – in other words, we face the choice of estimating the impacts of JobBridge for individuals who had undertaken JobBridge over any period in the past or in a specific period (e.g., preceding 12 months) in the past only.

Our initial investigations indicated that a number of factors might be at play, as some individuals might find a job while on internship, and then leave the internship, while others might stay longer while looking. Thus defining 'treatment' as only after completing a long internship might unnecessarily exclude some individuals who left early; defining treatment as too short might alternatively unnecessarily include some individuals who were not effectively treated. Further, these length-of-treatment effects might be correlated with confounders which were not captured or correlated with the observables. We also conduct sensitivity analysis on the length of treatment definition assumption.

We thus defined 'treatment' as anyone who received at least four months JobBridge internship before the treatment 'lookback' date (each subsequent month-year). The treatment lookback date is the month for which the analysis is being undertaken. Control group individuals continue to be those never treated. Persons who were subsequently treated are excluded and this variable is marked as missing for the given month.

The four-month treatment looks back 12 months for the main headline regressions. We also tested models with longer lookback periods and this did not have large impacts on the analysis. Additional detail and discussion on these sensitivity tests can be found in subsequent chapters.

We further limited the treatment such that an individual must have started and finished within the previous 12 months from the month in question (the treatment lookback date) for which the analysis is being carried out; persons who had less than four months' prior treatment and more than three months' future treatment from the month-year-date of the variable were excluded from either the treatment or control group; the rationale being that the people who are going to subsequently undertake JobBridge; we do not know why they do not undertake JobBridge sooner—it may be because they are not unemployed or it may be some unobserved factor. These individuals would be a very small portion of any sample at a point in time (month-year).

Figure 3.2 provides an example of some of the possibilities of the definition of treatment.

Figure 3.2: Definition of Treatment at a Point in Time

Status	Individual	Year - Month													
		2012 M12	2013 M1	2013 M2	2013 M3	2013 M4	2013 M5	2013 M6	2013 M7	2013 M8	2013 M9	2013 M10	2013 M11	2013 M12	2014 M1
Treated	ID 1		x	x	x	x									
Treated	ID 2									x	x	x	x		
Excluded	ID 3											x	x	x	x
Treated	ID 4														
Not Treated/Control	ID 5			x	x	x	x	x	x	x	x				
Not Treated/Control	ID 6					x	x	x							

2014 M1 = Look Back Month

Source: Indecon

In order to be counted as treated, we see that an 'x' marks the month where the individual has completed a JobBridge internship in the analysis period, which is January 2014 in this example. If a sum of four 'x's is found the simple 'treated' variable is converted to the exact treatment variable for the time/analysis period in question. Individuals treated outside this time frame are excluded from the analysis which is specific to that point in time (the process is repeated for each point in time).

While we have utilised a specific definition of the treatment variable to be included in our analysis in terms of the minimum number of months which allow someone to be qualified as treated and the length of time over which we look back over an individual's employment history to measure treatment, it should be noted that Indecon has tested the sensitivity of our results to the definition of treatment. Additional sensitivities undertaken included:

- Define treatment at different levels and estimated a multinomial logit model of IPWRA, where the levels of treatment are defined for every three months;
- Define treatment as at least six months of JobBridge; and
- Inclusion or not of outcome and treatment control variables for 'current' status – that is the status of the individual from the analysis time point.

The rationale for these sensitivities is to test the sensitivity of the outcomes to the definition of the length of treatment or to other factors. It is also a policy relevant variable, as the length of internship necessary to achieve the stated goals of the Programme will likely impact the value for money and CBA analysis.

In general, the overall conclusions were not sensitive to the changes in assumptions. We discuss additional details of the covariates and other variables later in the context of the results.

3.5 Relevant Policy Questions and the Need to Control for Self-Selection

The proposed approach is to use econometric techniques to estimate the likelihood that individuals who participated in JobBridge would have found a job in its absence – the counterfactual.

It is important to also note that the value of the Programme in terms of its benefit-cost ratio must be evaluated with respect to the deadweight, or the counterfactual hypothesis. All of this is suggestive of treatment effects modelling. While if resources are not available to complete such analysis other research techniques can be used which add value and insights, a comprehensive evaluation requires the use of such counterfactual.

It is useful to note that the relevant estimate we seek in our econometric analysis is the average treatment effect on the treated (ATET). This is the relevant policy metric which will enable a Cost-Benefit Analysis (CBA) evaluation of the Programme.

3.6 Literature Review

This section contains an illustrative review of some previous evaluations of labour market programs in Ireland and abroad which have used CIE. We also present a short summary of a sample of peer reviewed publications which have implemented CIE techniques.

In an Irish context, a recent study evaluating the impact of the Back to Education Allowance (BTEA) which made use of a similar approach to that proposed here was published by the Economic and Social Research Institute (ESRI) in Dublin (Kelly et al. 2015). This study conducted a counterfactual analysis of the impact of the BTEA scheme using data from the JLD. This evaluation made use of the PSM methodology using nearest neighbour matching with replacement.

The ESRI study ran models looking at the overall impact of the different forms of the BTEA as well as models examining the differing impact of participation in the BTEA by the amount of time spent on the Programme. The study examined the effectiveness of the Programme in terms of returning people to employment, further education and keeping people off the Live Register. The evaluation included many of the same covariates which we propose to include in our analysis (age, gender, marital status, children, and unemployment history).

The ESRI study concluded that the participants in the BTEA programme were less likely to be employed than those matched individuals who did participate.[3]

One recent, very similar example of what is required for the JobBridge evaluation is the detailed research which Indecon's London office, London Economics, was commissioned to undertake for the Department for Business, Innovation and Skills in the UK, namely to undertake an evaluation of the UK National Careers Service. The analysis involved a detailed matching of National Careers Service (NCS) customer information; HMRC information on earnings and employment outcomes; Department of Work and Pensions (DWP) information on benefit dependency; and information on publicly funded training. Having matched the various datasets and undertaken a detailed assessment of the characteristics of NCS customers, London Economics assessed the employment

[3] See Kelly, Elish, Seamus McGuinness, and John R. Walsh. "An Evaluation of the Back to Education Allowance." *Economic and Social Research Institute (ESRI) Research Series* (2015).

and benefit histories of those individuals prior to participation in the Programme, as well as the short-term outcomes following the intervention. Recognising the differences in the personal, socioeconomic and labour market histories between NCS customers and non-customers, this study implemented a Propensity Score Matching model to identify an appropriate counterfactual. The original exploratory analysis was published in the Department's Research publication series (BIS RR-97 here).

The CIE approach has also been used effectively by other economists in the evaluation of training programmes and other labour market activation policies. For example, Dehejia and Wahba (1999) and Heckman et al. (1997) both employ the PSM technique to assess the impact of job training programmes on incomes and employment using non-experimental data. In the UK, the Institute for Fiscal Studies has published analysis of the impact of labour market activation policies using PSM (Blundell et al. 2001). The IFS examined the impact of a mandatory job search assistance programme on employment outcomes using PSM and found that the Programme raised transitions to employment by around 5%. Also in the UK, Lindley et al. (2010) perform a counterfactual impact evaluation of the 'Want2Work' Programme. This work found that the treatment group were significantly more likely to obtain employment than the matched control.

The PSM methodology has also been used to assess the impact of labour market activation policies in New Zealand (Maré, 2002). The New Zealand study found that policy interventions in the New Zealand labour market were more successful at improving employment outcomes for males and younger people. In Sweden (Larsson, 2002), PSM has been used to evaluate policies aimed at youth activation and found that the programmes have little impact in the short term but a more positive impact in terms of labour market outcomes in the long run. A wider evaluation of labour market programmes employed in Sweden in the 1990's also made use of the PSM methodology (Sianesi, 2004). A similar approach has been used to evaluate the performance of labour market programmes in Switzerland (Lechner, 2002) and there is extensive other experience of relevance.[4]

In Ireland, Indecon and other economists have used a PSM approach as the basis for the derivation of the outcome estimates. Using an application of the PSM approach, a study on export performance (Gorget al. 2008) using the ABSEI database found that grants do support increased export activity, but only for the large firms. Also, this econometric approach has been used recently to investigate the importance of SME credit on growth performance (Lawless and McCann, 2011).

[4] See Caliendo, M and S Kopeinig (2008). "Some Practical Guidance for the Implementation of Propensity Score Matching". *Journal of Economic Surveys*, 22(1): 31-72. Also Heckman, J., R. LaLonde and J. Smith (1999). "The Economics and Econometrics of Active Labor Market Programs", in Ashenfelter, O. and D. Card(eds.), *Handbook of Labor Economics, Volume III*. Amsterdam: Elsevier. Also Martin, J.P. and D. Grubb (2001). "What Works and For Whom: A Review of OECD Countries' Experiences with Active Labour Market Policies." *Swedish Economic Policy Review*, 8 (2001): 9-56 and Rosenbaum, P. and D. Rubin (1983). "The Central Role of the Propensity Score in Observational Studies for Causal Effects", *Biometrika*, 70 (1): 41-55.

3.7 Choice of Econometric Approach for the Counterfactual Impact Evaluation

The broad spectrum of CIE analysis can be thought of as consisting of matching, weighting, or adjusting outcome predictions to control for treatment selection bias. There are a wide variety of matching and/or weighting techniques possible, and Indecon's approach is largely empirical and one of sensitivity analysis.

The selection of models depends on a researcher's judgment about what the best balance is between a variety of factors, but most fundamentally efficiency and potential bias/violation of the assumptions.

Our starting point for model selection follows some of the recommendations of the recent literature, including Imbens (2007), Caliendo (2005), Caliendo (2011), Drucker (2013) and Hubner (2015).

Propensity score matching (PSM) is a widely used technique and it is suggested that this is a natural starting point for when the outcome model is unknown; alternatively, when the treatment model is not known, Hubner suggests regression adjustment (RA) as the base model.

Imbens et al. (2008) and other authors suggest the use of 'double robust' models, such as inverse probability weights with regression adjustment (IPWRA).

Overall, our preferred approach is to use the IPWRA model as our headline model, and then test the sensitivity of the results to model selection. The main rationales for this are two-fold; first, the IPWRA model allows for controlling both the treatment and outcome models for covariates, and there are seemingly sufficient prior expectations that both outcomes and treatment selection may in part depend on some of the available covariates, such as location, income, prior labour market histories, etc. Secondly, the IPWRA model has the property of being double-robust with respect to specification bias of either the outcome or treatment probability models.

We also estimated PSM and RA models, and broadly, the statistical significance and qualitative and quantitative differences were small, while there was some variation naturally based on model selection. The investigation of the results of these alternative models ensures that our findings are not determined by model selection.

3.8 Selection of covariates

Selection of covariates is a challenge in programme impact evaluation modelling. It is difficult to select the covariates for the model without having first specified the model, as different models model outcome and selection differently.

There is further the trade-off of efficiency versus potential bias, as including many covariates with little explanatory power tends to increase variance, while excluding variables that matter may introduce bias.

Treatment models such as PSM have the further challenge that more covariates tend to improve the balancing of the covariates, but may exacerbate the overlap assumption.

Caliendo (2005) suggests it is important to consider the following when deciding upon independent variables for inclusion in the analysis:

- Only independent variables which influence both the selection into the treatment and outcome should be included; and
- Matching variables should preferably be measured before treatment is given.

In our model selection process, we considered estimates of a preferred baseline using employment as the success variable and either propensity score matching, regression adjustment, or inverse probability weights. We estimated propensity score matching (PSM) and regression adjustment (RA), IPW, and the inverse probability weight regression adjustment models on a random sub-sample of the data (about 20,000 observations with a ratio of 2:1 control to treated).

While all the models gave broadly similar results, our preferred model is the inverse probability weights regression adjustment model (IPWRA), as this model is of the class of models that is 'double robust' (Hubner, 2015) (Imbens and Wooldridge, 2008). Further, while the former PSM allows covariates to be specified for the treatment model, and while the RA allows covariates for the outcome model; the IPWRA allows both the outcome model and the treatment model to be specified and estimated with any number of covariates.

Our approach is also influenced by the available data. A list of potential explanatory variables, including derived variables, was discussed in detail previously, and is as follows:

- Age
- Age squared
- Gender
- Nationality
- Amount of time spent unemployed in the last five years
- Amount of time spent in employment in the last year
- Number of dependents
- Amount of benefits previously being received
- Location
- Marital Status
- Previous occupation
- Duration of previous episode/spell
- Current status
- Eligibility
- Earnings

With regards to these variables, we conducted primary logistic regressions on outcomes and treatment, and considered the statistical significance and explanatory power of the models, as well as other factors such as pseudo-R-squared measures of fit. Further, additional estimation of the R-squared for treatment before and after matching was done, to ensure matching had exhausted any explanatory power on treatment. These analyses were done as indicators of the usefulness of a variety of covariates at the starting point.

Age and age squared are standard type covariates to include in labour market analysis, and the squared term reflects the inverse-quadratic type relationship which is expected that rather young or rather old participants are either less likely to be treated or less likely to find a job easily or both.

Nationality may or may not have an impact, but one might assume nationals to have some advantages in knowledge of schemes, job opportunities, etc., so this may be an important proxy variable.

Labour market histories such as the last five years' percentage of time spend in unemployment or most recent year's percentage of time in employment are likely proxies for labour market participation and ability, such variables that might impact outcome and/or treatment. The rationale for splitting these was to create non-collinear explanatory variables considering long- and short-term labour histories. Additionally, the prior expectation that long periods/high percentage of unemployment might be of greater importance than the more recent history of actual employment.

Marital status is a proxy for a host of socio-demographic characteristics, but it is difficult *a priori* to anticipate about how it might impact treatment, especially as all else is equal when controlling for age and number of dependents.

Previous occupation will be a control variable for ability and type of skills. In the outcome model, it may also indicate the difficulty of finding a job in a particular industry.

Duration of previous spells was also considered in the analysis—this is the length of the most recent spell of any status prior to their current status. This was also interacted with duration 'employed' or 'unemployed'. In some cases, including this variable resulted in 'not treated' being perfectly determined, so merely 'previous duration' was included.

Finally, we also considered current status as a control variable for both outcome and treatment. This was potentially important as in theory it can be important whether the individuals in both the treatment and control groups could be in any labour market status at the analysis time point. We considered the merits of controlling for market labour market status in the month in question by including this as a control variable in both outcome and treatment regressions in the IPWRA case and in the treatment model in the PSM case.

In our base case analysis (IPWRA) we did not do this as some individuals in the month in question may be still undergoing treatment, and we accept that this might have impact on the results. We however completed a rerun of the full model and subsamples including 'current status' as a control variable. This gave a slightly higher estimate of the ATET than our base model. However, as we are concerned to ensure that there is no overestimation of the treatment impacts we have not included this in our base case but accept that there is a technical argument why this should be included.

It is also noteworthy that trying to run the regression analysis only for individuals who were unemployed at the end of their JobBridge internship could potential bias the results, as individuals who would have been immediately or quickly offered a job by their host organisation would have been excluded from the analysis.

Eligibility is also a relevant control variable. Eligibility is an administratively defined concept, as individuals were supposed to be only eligible for JobBridge if they had been on the Live Register at least six months prior to starting a JobBridge internship. We excluded individuals who were not eligible. We note eligibility is a point-in-time specific variable and refers to the potential starting

point in time of the JobBridge internship. Thus in practice, eligibility was over a period of time if the individual had been unemployed continuously from any point in time up to the potential starting time of the JobBridge internship. As it turns out, we were informed that in practice this was not always the case, one of the aspects of this being that individuals could potentially have been on disability allowance, and not technically on the Live Register, but then taken up a JobBridge internship with less than six months on the Live Register. Nonetheless our understanding from DSP staff is that individuals undertaking JobBridge had to have been previously unemployed immediately prior to JobBridge. We weight-on/match-on both eligibility and percentage of time employed in the previous year as control variables. Thus eligibility is a variable that was used as a control in the treatment model, and it is specific to the point in time of the analysis.

Earnings was also a variable that we included in our analysis after testing preliminary logits on models of treatment and outcome/success. Earnings were defined as the sum total of reported earnings in the previous year from the Revenue Commission.

It should be noted that many variables can be derived, and improving the balancing of the covariates can often be achieved by including more variables and their interaction terms or higher order terms. We did this at a variety of points in the analysis. Very generally, it was often the case that including higher order covariates, especially in larger samples (we conducted most of our tests on random samples), improved fit and sometimes the new variables were statistically significant. However, the statistical differences between the R-squared (Chi-squared statistics) of the models were rarely different and from a qualitative evaluation the R-squared statistics were not significantly different.

3.9 Average Treatment Effect on the Treated (ATET)

The relevant policy variable for our analysis is the ATET.

Indecon has developed and defined outcomes as status of "employed" one year and two years from a given date. Regressions are run quarterly, for a specific month-year date, that is to say, every three months, with a 'lookback' of 12 months prior to the month-year.

For each of the outcome variable in question, the ATET can be formally written as:

$$ATET = E(\Delta|x, D = 1) = E(y_1|x, D = 1) - E(y_0|x, D = 1)$$

where y_1 is the outcome for those individuals who have participated in JobBridge while y_0 is the outcome for these same individuals should they not have partaken in JobBridge. D is the variable for participation in JobBridge while x is the collection of independent variables outlined above.

After weighting/matching and estimation, it is then possible to compare the outcomes between the treatment and control groups. This can be represented as:

$$ATET = E(\Delta|p(x), D = 1) = E(y_1|p(x), D = 1) - E(y_0|p(x), D = 0)$$

The first term refers to the differences in outcomes. This term may be biased. The second term uses the differences in outcomes for the control group to eliminate this bias.

The ATET estimator can then be written as:

$$ATET = \frac{1}{n} \sum_{i\epsilon[D=1\}} [y_{1,i} - \sum_{j} w(i,j) y_{0,j}]$$

Each treated observation i is matched to j control observations. In this estimation $y_{1,i}$ represents the outcome for the treated individual, i. $y_{0,j}$ represents the employment outcome for the matched unit or units j. w is the weighting applied, where the weights depend on the matching or weighting estimator.

In our case at hand, then the ATET represents the additional probability of moving from unemployed (immediately prior to the commencement of JobBridge) to employed status, one year after completion of a JobBridge internship, which is the relevant policy variable in question for the CBA analysis and other policy evaluations.

3.10 Summary

- In Indecon's opinion, a comprehensive evaluation of this Programme required an estimate of the 'counterfactual', i.e., 'what would have happened otherwise'.
- This was achieved by utilising a rigorous econometric methodology to estimate treatment effects. After significant testing, Indecon's analysis indicated that the best approach was to use an inverse probability weights regression adjustment (IPWRA) estimator, on the full dataset. Both the (IPWRA) and the (PSM) approaches are aligned with international best practice for the evaluation of labour market initiatives. We also extensively tested the impacts using an alternative propensity score matching technique (PSM).
- The relevant policy variable to test the impact of the Programme is the average treatment effect (ATET). Indecon defined outcomes as status of "employed" one year and two years from a given date. Regressions were run quarterly. For each of the outcome variables in question, the ATET can be formally written as:

$$ATET = E(\Delta|x, D = 1) = E(y_1|x, D = 1) - E(y_0|x, D = 1)$$

- where y_1 is the outcome for those individuals who have participated in JobBridge while y_0 is the outcome for these same individuals should they not have partaken in JobBridge. D is the variable for participation in JobBridge while x is the collection of independent variables.
- After weighting/matching and estimation, it is then possible to compare the outcomes between the treatment and control groups. This can be represented as:
- $ATET = E(\Delta|p(x), D = 1) = E(y_1|p(x), D = 1) - E(y_0|p(x), D = 0)$
- The first term refers to the differences in outcomes. The second term uses the differences in outcomes for the control group.
- The ATET estimator can then be written as:

$$ATET = \frac{1}{n} \sum_{i \epsilon [D=1\}} [y_{1,i} - \sum_{j} w(i,j) y_{0,j}]$$

- Each treated observation i is matched to j control observations. In this estimation $y_{1,i}$ represents the outcome for the treated individual, i. $y_{0,j}$ represents the employment outcome for the matched unit or units j. w is the weighting applied, where the weights depend on the matching or weighting estimator.

4 Findings of the Counterfactual Impact Evaluation

4.1 Introduction

This chapter outlines the results from the econometric analysis undertaken by Indecon concerning the counterfactual impact evaluation of the JobBridge Programme. The findings presented in this chapter estimate the impact of the JobBridge program relative to the counterfactual situation when the Programme is not implemented. As such, these findings are a key component in the overall appraisal of the effectiveness of the project to date and the appropriateness of its continuation in some form in the coming years.

This chapter presents the findings for the main model using the IPWRA methodology as well as the corroborating findings from the model using the PSM methodology. This chapter also outlines some of the diagnostics carried out in the process of the specification of the models before then discussing the sensitivity and robustness checks that Indecon has undertaken on these models, the results of which are presented in the annexes to this report. The results of a number of models run on sub-samples of the JLD stratified by various criteria are also presented.

4.2 Main Model – Inverse Probability Weighted Regression Adjusted

This section reports the Average Treatment Effect on the Treated (ATET) for a number of weighted (IPWRA) treatment and control samples on a three-monthly basis between 2012 and 2014. While Indecon has investigated a number of different outcome measures, in the results presented here we define the dependent variable as 1 should the person be in employment one year after the given month, and zero otherwise. Additional estimation results using 2-years on and other definitions of outcome (e.g., not unemployed) were also completed.

Table 4.1 outlines the key findings from the IPWRA regression model run on the entire JLD sample. The full dataset contains 1.46 million observations. 37,000 or 2.46% of this sample are treated. This table reports the ATET coefficient, standard error, p-value and the sample size for each sub-sample based on the time period.

Table 4.1: IPWRA Model – ATET - Employment One Year in the Future

Time Period	ATET	Standard Error	P-Value	Sample Size
2012 Month 6	0.1299	0.0084	0.000	672,580
2012 Month 9	0.1185	0.0071	0.000	653,274
2012 Month 12	0.1082	0.0068	0.000	630,913
2013 Month 3	0.1133	0.0065	0.000	604,915
2013 Month 6	0.1109	0.0066	0.000	575,249
2013 Month 9	0.1228	0.0066	0.000	546,328
2013 Month 12	0.1274	0.0070	0.000	510,788
2014 Month 3	0.1202	0.0069	0.000	470,612

Source: Indecon analysis

The findings indicate a positive and significant impact of participation in JobBridge on an individual being successfully employed one year on from a given month. Treatment in these models is defined as outlined previously in this document and relates to the completion of at least four months of JobBridge in the last year. For example, this implies that the findings for 2012 month 6 are based on the performance of treatment group individuals who have experienced at least four months of a JobBridge program within the preceding twelve months versus the performance of a matched individual over this same period.

Table 4.2 presents a condensed version of the findings in Table 4.1 by taking a weighted average of the ATET estimates from each quarter. The average is weighted by the number of treated individuals in each month. We also present the weighted average ATET when employment two years in the future is used as the dependent variable. The weighted average suggests that over the entire time period from 2012 to 2014 participation in the JobBridge Programme lead to an increase in the probability of an individual being employed one year on from a given point was 11.8 percentage points.

Table 4.2: IPWRA Model - Weighted Average ATET

	Weighted Average ATET (Percentage Points)
IPWRA Model	
Employment After 1 Year	11.8
Employment After 2 Years	12.3

Source: Indecon analysis

We have also performed a number of sensitivity analyses, including defining treatment as six months, or allowing treatment as any treatment in the previous 18 months, and the results have been broadly similar. We have also been able to perform an analysis allowing different treatment levels, e.g., 4-6 and 7-9 months on the IPWRA model on a random sample; again, the results are broadly similar, indicating a preliminary conclusion that are not sensitive to the definition of treatment by length of treatment. However, as most interns were on 9 month internships it is difficult to be definitive on this. The results of additional sensitivity tests can also be found in the Annex to this report. We have run tests that actively seek to control for participation in previous labour market activation programmes, as well as tests using model including additional control variables and using alternative outcome variables. The results are similar in so far as the significant and direction of the findings remains the same as those reported for the main model.

We find that the ATET coefficient remains significant in each time period. A similar table to the one presented below which outlines the results for the same model when the dependent variable is employment two years in the future can be found in the Annex to this document. It contains fewer sub-samples but exhibits broadly similar results.

The independent variables included in these models are:

- Age
- Age squared
- Gender
- Nationality
- Number of children
- Marital status
- Region
- Eligibility for JobBridge
- Duration of previous status
- Average Live Register payment
- Duration of current status
- Previous occupation
- Percentage of last year spent in employment
- Average earnings

We test the covariates and the quality of the matches based on a variety of tests. Caliendo (2005) suggests the starting point in most of the literature is the standardized differences between the covariates after matching should be close to or less than 5%; and the variance ratios should be close to one. More formal testing can proceed with inspection of box-plots or other means. A test of the covariate means of both groups can be carried out. After matching, the covariates of both groups should be the same.

Table 4.3 overleaf presents the covariate balance summary for the model run for June 2013. This table presents the standardised differences and the variance ratio for the raw and weighted data for each of the variables included in the IPWRA model.

The difference between the raw and weighted standardized differences can be interpreted as the change from using the weighted or matched subsample. It is notable that the weighted number of observations is due to some observations getting more or less weight, where the weights can be greater or less than unity, such that the two sample sizes are quite similar. This table outlines the degree to which the covariates in the regression are balanced. The results suggest that the covariates are reasonably well balanced in the weighted data.

Table 4.3: IPWRA Model – Covariate Balance Summary – 2013 Month 6				
	Raw		Weighted	
Number of obs	575,249		575,249	
Treated obs	3,911		287,587	
Control obs	571,338		287,662	
	Standardised Differences		Variance Ratio	
	Raw	Weighted	Raw	Weighted
Gender	-0.1234	-0.0005	1.0325	1.0001
Age	-0.4802	-0.0007	0.5444	0.9991
Age squared	-0.5024	-0.0007	0.4582	1.0709
Average number of children	-0.0206	-0.0007	0.9239	0.9645
Eligibility	0.0874	-0.0004	1.1043	0.9996
Duration of previous status	-0.0362	0.0001	0.4728	0.6652
Average Live Register payment	0.1676	-0.0008	0.5747	0.6700
Previous Occupation	0.1373	-0.0001	1.2382	0.9999
Irish	0.1776	-0.0002	0.7010	1.0004
Time employed in last year	-0.7415	0.0016	0.3313	0.5857
Married	0.4737	0.0005	0.9280	0.9997
Region	-0.0249	0.0000	0.9988	1.0000
Average Earnings	-0.3166	0.0008	0.2415	0.7216
Source: Indecon analysis				

Caliendo (2005) describes a further joint test. The treatment model is re-run on the matched sample – the ability of the model to explain the difference between the treatment and non-treatment group should be low, thus the pseudo-R-squared statistic should thus be fairly low—indicating a reasonable approximation to random treatment assignment based on the covariates. The results of this test on our models suggested that the treatment model under various specifications had exhausted any statistically significant explanatory power.

A common practice as a test of model validity is to undertake falsification tests. We subjected our main modelling approaches from the analysis to some of the common falsification tests.

Imbens (2006) suggests a number of possible falsification tests, including random treatment assignment. We conducted two such falsification tests on a random sample of the data with about 2:1 control versus treated observations.

First, we estimated the standard models and then we regenerated a separate treatment variable that was based on a uniformly distributed random variable for each ID on the interval [0,1]. ID's with a random number greater than 0.667 were given a value of 1 for the (false) treatment, and other 0, as the (false) control. The entire analysis was then repeated quarterly as before. The results showed statistically insignificant treatment effects in all cases.

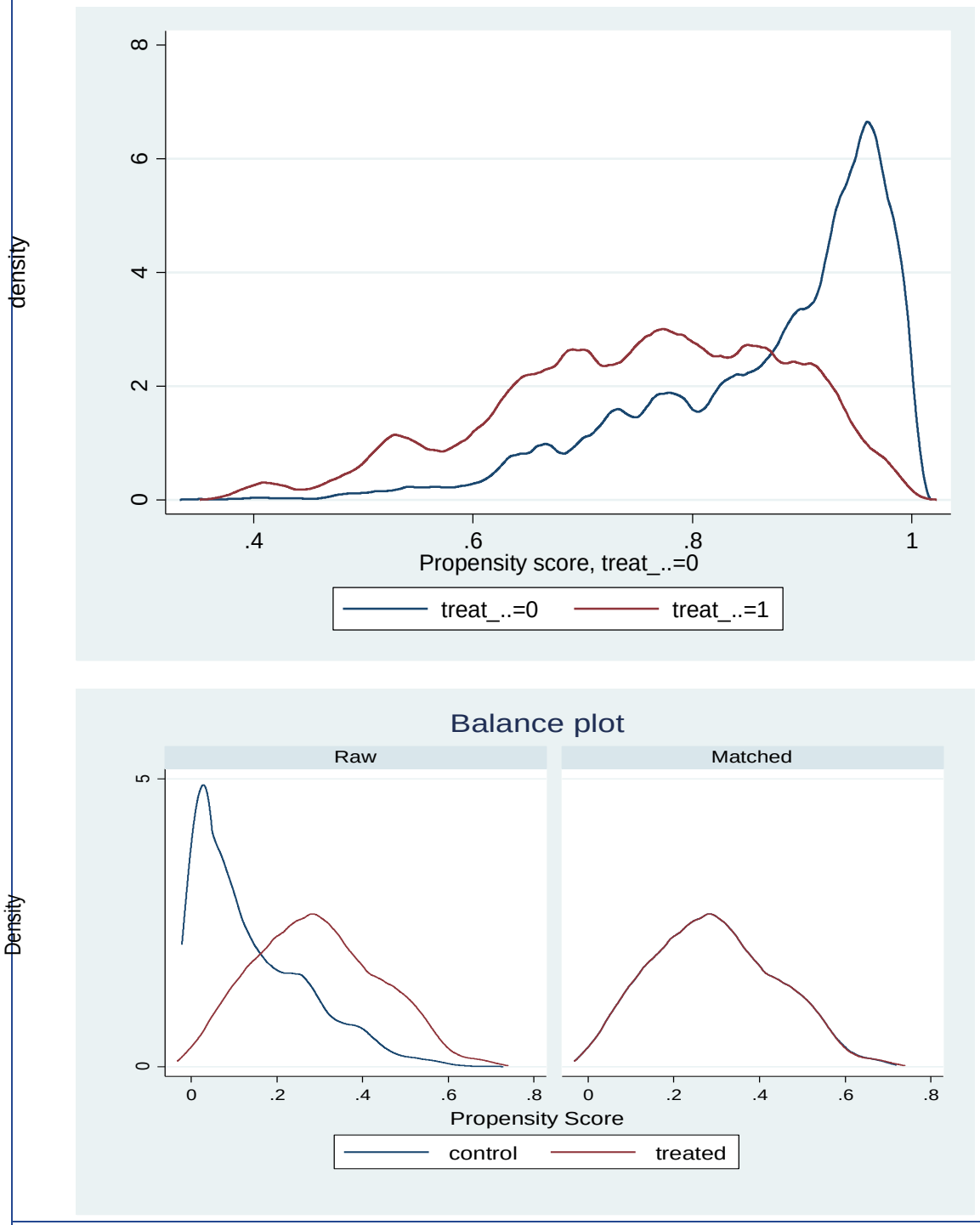
A second falsification test was to include advancement to education as an impact of JobBridge – this is not one of the goals of JobBridge, and if there was some other factor that was causing individuals to find jobs that was correlated with JobBridge as well as education and training labour market activation programmes, then this might show up as a significant result. We believe this is a useful as a falsification test because the nature of such tests is to see if 'not an expected outcome' indeed yields 'insignificant or no positive results'. Advancement to education or training as a result of treatment in JobBridge however, did not show significant ATET estimates in our analysis.

An assumption underlying the methodologies for undertaking treatment and control group analysis is what is referred to as the overlap assumption or the common support condition. This assumption requires that each unit in the defined population has some chance of being treated and some chance of not being treated. If this assumption is not upheld in the underlying data, then the subsequent analysis may be invalidated.

First, we conducted detailed inspections of the densities and histograms of the predicted propensity scores for all the main models. This was done graphically for treated and non-treated groups, based on the definition of treatment for each regression. Further, we compared the predicted densities of the propensity scores before and after matching, for treated and non-treated. Further, we also estimated models using both the PSMATCH estimation software in STATA and the effects PSMATCH command in STATS, which allow different effects of the violation of the common support condition (the latter regression fails if any observations are off the common support, while the former reports observations off the common support and then estimates the regression).

Figure 4.1 overleaf illustrates the validity of the overlap assumption in the JLD. These graphs suggest that the overlap assumption is satisfied and that the treatment and control group analysis carried out on the data is thus valid in terms of compliance with the common support condition.

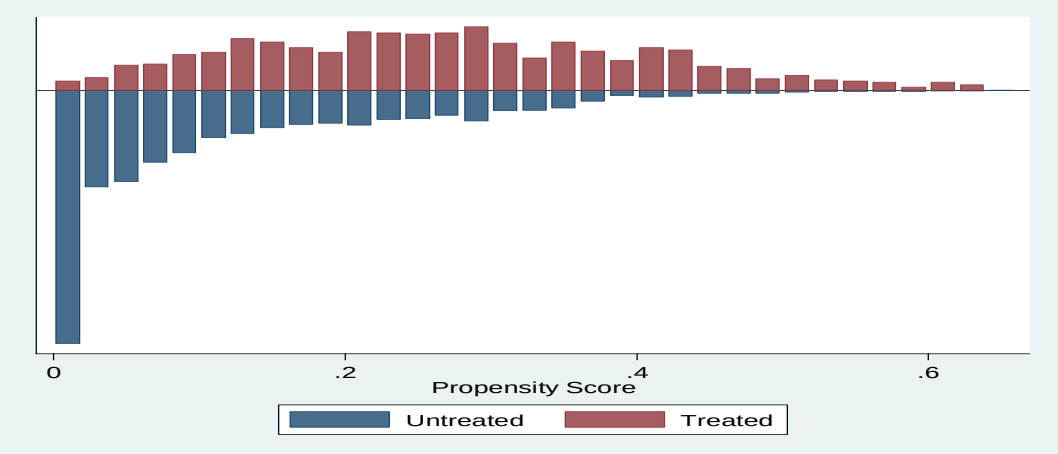
Figure 4.1: Illustration of Validity of Overlap Assumption



Source: Indecon analysis of JLD

Figure 4.2 overleaf illustrates the propensity scores in the treated and untreated samples.

Figure 4.2: Propensity Scores in Treated and Untreated Samples



Source: Indecon analysis of JLD

4.3 Secondary Model – Propensity Score Matching (PSM) Methodology

In addition to the IPWRA models discussed above, Indecon has estimated Propensity Score Matching (PSM) models. PSM is a common technique for undertaking analysis using treatment and control groups. We have previously outlined why Indecon has preferred the IPWRA methodology for use in the main model for the purposes of the evaluation of the JobBridge Programme. We present the findings of the PSM model as a robustness check on the main IPWRA model and as a means of ensuring that the results of the evaluation are not model dependent.

PSM regressions were run for a large sample of the JLD dataset. Additional testing and models were run on smaller random sub-sample of the full dataset. The results of this analysis are displayed in the tables in this section.

This main PSM analysis was run on a sub-sample of the full JLD dataset containing 240,000 observations. 37,631 of these observations are treated and the remainder are untreated. The full population of treated individuals is included in this sample of the JLD. The sample was chosen randomly, but proportions of control and treated observations were selected set to be roughly 5:1.

As with the IPWRA model discussed above, this PSM approach uses samples of individuals by time period between the beginning of 2012 and the end of 2014 and examines the impact of participation in the JobBridge Programme on the likelihood of an individual being in employment a year after the month in question.

The PSM model is run using nearest neighbour matching set to two nearest neighbours. This PSM model is run with a calliper set at .3333. The imposition of this calliper specifies the maximum distance of the estimated propensity score for which two observations are potential matches. We note that over all of the regressions over time on both the larger and smaller random sub-samples, only one regression had one observation that did not satisfy the calliper restriction and nearest neighbour conditions (that same observation could find neither one nor two matches within the calliper). To overcome this problematic observation, the model was rerun without this observation. The exclusion of this single observation had a negligibly small impact on the overall results.

Table 4.4 outlines the findings of this PSM model in terms of ATET on the outcome of employment one year on from the given month. The model displays similar findings to the IPWRA model discussed above in so far as we find a positive and significant ATET of participation in JobBridge for every iteration of the model between 2012 month 6 and 2014 month 3.

Table 4.4: PSM Models – ATET - Employment One Year in the Future

Time Period	ATET	Standard Error	P-Value	Sample Size
2012 Month 6	0.1477	0.0122	0.0000	68,007
2012 Month 9	0.1399	0.0105	0.0000	66,966
2012 Month 12	0.1126	0.0099	0.0000	65,810
2013 Month 3	0.1207	0.0094	0.0000	64,524
2013 Month 6	0.1222	0.0097	0.0000	61,729
2013 Month 9	0.1307	0.0097	0.0000	58,687
2013 Month 12	0.1466	0.0101	0.0000	55,365
2014 Month 3	0.1303	0.0098	0.0000	52,081

Source: Indecon analysis

Table 4.5 presents the weighted average of the ATET estimates from Table 4.4 to give an estimate of the ATET over the whole period using the PSM methodology. As was the case for the IPWRA model, the ATET estimates are weighted by the number of treated individuals in each month. The table also presents the ATET when the dependent variable is employment after two years and not one year. The weighted average ATET suggests that over the course of the Programme, JobBridge participants had a 13.2 percentage points higher probability of being employed one year later compared to a situation in which that same individual did not participate in JobBridge.

Table 4.5: PSM Model - Weighted Average ATET

	Weighted Average ATET (Percentage Points)
PSM Model	
Employment After 1 Year	13.2
Employment After 2 Years	10.5

Source: Indecon analysis

Table 4.6 contains the covariate balance summary for one of the time periods analysed in the PSM model, namely 2013 month 6. This covariate balance summary has been carried out on the same sub-sample of the JLD upon which the analysis discussed in the preceding section was undertaken. As was the case for the covariate balance summary in the IPWRA model, the table suggests that the covariates are relatively well balanced post matching.

Table 4.6: PSM Model – Covariate Balance Summary – 2013 Month 6				
	Raw		Matched	
Number of obs	61,729		7,628	
Treated obs	3,814		3,814	
Control obs	57,915		3,814	
	Standardised Differences[5]		Variance Ratio	
	Raw	Matched	Raw	Matched
Previous Occupation	0.1548	-0.0250	1.2781	0.9678
Gender	-0.1420	0.0074	1.0410	0.9990
Irish	0.1538	-0.0004	0.7306	1.0010
Age	-0.4955	0.0126	0.5961	1.0025
Age squared	-0.5014	0.0113	0.4948	1.0443
Average number of children	-0.0709	-0.0204	0.8018	0.9236
Eligibility	0.0046	-0.0070	1.0049	0.9931
Duration of previous status	-0.4758	-0.0303	0.0467	0.8883
Average Live Register payment	0.0430	-0.0165	0.5300	0.7474
Time on Live Register last 5 years	0.1230	-0.0163	0.5318	0.6354
Time employed in last year	-0.7701	0.0091	0.3380	0.6351
Married	0.4714	-0.0063	0.9281	1.0041
Region	-0.0263	0.0105	0.9987	1.0010
Average Earnings	-0.2989	0.0213	0.3101	0.7731
Source: Indecon analysis				

Table 4.7 overleaf contains additional details such as t-tests for balance after matching. The t-tests indicate that the matched samples contain no significant difference between variable means for the treatment and control groups in almost all cases.

[5] The standardized difference is the difference between the mean of the variables before (raw) and after matching (matched)—i.e., for the raw sample and the sample versus control after matching. The variance ratio is the same but for the ratio of the variances of the variables.

Table 4.7: PSM Model – Covariate Balance Summary, Additional Details – 2013 Month 6

Variable	Unmatched / Matched	Mean Treated	Mean Control	%bias	%reduct |bias|	t-test t	t-test p>|t|	V(T)/ V(C)
Previous Occupation	U	.2437	.16039	20.9		6.87	0.000	.
	M	.2437	.23193	2.9	85.9	0.69	0.493	.
sex	U	.52396	.60549	-16.5		-5.21	0.000	.
	M	.52396	.53128	-1.5	91.0	-0.36	0.716	.
Nationality	U	.88302	.81913	18.0		5.37	0.000	.
	M	.88302	.89074	-2.2	87.9	-0.60	0.546	.
Age	U	34.703	40.001	-47.2		-13.59	0.000	0.52*
	M	34.703	34.888	-1.6	96.5	-0.48	0.628	0.94
Age Squared	U	1290.5	1765.4	-50.0		-14.13	0.000	0.44*
	M	1290.5	1309	-1.9	96.1	-0.61	0.540	0.98
Child Dependents	U	.1742	.22601	-9.5		-2.87	0.004	0.76*
	M	.1742	.1788	-0.8	91.1	-0.23	0.819	1.06
Eligibility	U	.2039	.24662	-10.2		-3.15	0.002	.
	M	.2039	.2104	-1.6	84.8	-0.40	0.691	.
Duration of Prev. Empl	U	16.569	359.05	-40.8		-10.15	0.000	0.01*
	M	16.569	17.718	-0.1	99.7	-0.33	0.741	1.04
Live Register Payment	U	76.278	68.114	12.5		3.61	0.000	0.53*
	M	76.278	78.835	-3.9	68.7	-1.05	0.292	0.69*
% Time on LR last 5y	U	.35754	.28303	27.7		7.95	0.000	0.51*
	M	.35754	.36803	-3.9	85.9	-0.97	0.332	0.52*
% Time employed last 1y	U	.26936	.4562	-48.3		-13.87	0.000	0.51*
	M	.26936	.24929	5.2	89.3	1.44	0.151	0.74*
Marital Status	U	.65313	.42155	47.7		14.81	0.000	.
	M	.65313	.65191	0.3	99.5	0.06	0.949	.
Region	U	.48903	.48976	-0.1		-0.05	0.964	.
	M	.48903	.48863	0.1	44.0	0.02	0.984	.
Average Earnings	U	12650	16845	-26.6		-7.52	0.000	0.44*
	M	12650	12596	0.3	98.7	0.11	0.909	1.22*

* if variance ratio outside [0.89; 1.12] for U and [0.89; 1.12] for M

Source: Indecon analysis

Caliendo (2005) describes a further joint test for covariate balance. The treatment model is re-run on the matched sample – the ability of the model to explain the difference between the treatment and non-treatment group should be low, thus the pseudo-R-squared statistic should thus be fairly low—indicating a reasonable approximation to random treatment assignment based on the covariates. The results of this test on our PSM models suggested indeed the treatment model under various specifications had exhausted any statistically significant explanatory power.

In order to test the validity of the PSM analysis, Indecon conducted sensitivity analysis on the calliper, nearest neighbour and tolerance factors. The calliper limits the distance between any matched observations. Adding additional nearest neighbours may exacerbate common support issues, as the estimation will have to search harder for more matches for observations that are already close to being off the support.

The calliper adjustment, available with matching estimators such as PSM, does not test the common support condition *per se*, but limits the distance that any two observations can be apart when they are matched. It is likely that close matches will be on the common support nonetheless. We set the standard calliper to (0.333) for our full dataset estimation, and conducted sensitivities on a random sample of about 22,000 observations down to 0.1. The results were generally insensitive to changes in these assumptions.

4.4 Stratification

In addition to the testing and other specifications estimated, we also tested the robustness of our broad conclusions, i.e., that JobBridge has a positive impact on improving employment prospects, on different strata of the data. Stratification can be a useful robustness check for a variety of reasons, for example: the Programme might work for one type of individuals and not for other types.

Estimating the model for different strata in the IPWRA model allows ATET estimates in both the outcome and treatment models to vary between the strata. An example of this is age. Where age tends to have an inverse quadratic effect very generally in treatment selection in our models; the oldest and youngest age cohorts are less likely to be treated, this effect (the coefficient on the quadratic age term) may disappear (become insignificant) when stratifying by age.

Indecon have tested a number of different means of stratifying the data. We carry out an analysis of the data stratified by:

- Age
- Occupation
- Region
- Earnings

What follows in this section are the results of these models run on stratified data.

Age and occupational strata, where in the former we split the sample into 6 different age categories, while in the later we split the sample into professional and non-professional workers based on the DSP's job classification. We believe this later was similar to that as done by the ESRI (ESRI 2015), but the ESRI did not estimate a regression for each strata, only 'non-professional' workers.

Additional stratification was effectively also done by separating the sample into 'high earning' and 'non-high' earnings, selected details of which were also presented previously.

In stratifying by age, Indecon has split the sample data into two distinct age groups. The IPWRA model was run on a sample of the JLD containing only those under 45 years of age and on a sample containing only those older than 45.

Table 4.8 outlines the detailed model outputs for March 2013.

Table 4.8: IPWRA ATET estimate – Age Stratification					
Stratification:	**Less than 45 years old**				
Observations:	**11,628**				
	Coefficient	**Standard Error**	**P>z**	**95% Confidence Interval**	
ATET					
treat_back1_2013m3	0.113	0.012	0.000	0.091	0.136
POmean					
treat_back1_2013m3	0.405	0.009	0.000	0.388	0.422
Stratification:	**Greater than 45 years old**				
Observations:	5,421				
	Coefficient	**Standard Error**	**P>z**	**95% Confidence Interval**	
ATET					
treat_back1_2013m3	0.144	0.025	0.000	0.094	0.193
POmean					
treat_back1_2013m3	0.259	0.013	0.000	0.234	0.284
Source: Indecon analysis					

Indecon would caution against placing too much emphasis on sub results from the model.

Table 4.9 illustrates the ATET estimates for each quarter between the two age groups.

Table 4.9: IPWRA ATET Estimate – Age Stratification – All Months				
Age < 45 Years				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.1140	0.0157	0.000	11,807
2012 Month 9	0.1046	0.0133	0.000	11,837
2012 Month 12	0.1105	0.0123	0.000	11,701
2013 Month 3	0.1134	0.0116	0.000	11,628
2013 Month 6	0.1134	0.0114	0.000	11,180
2013 Month 9	0.1255	0.0116	0.000	10,659
2013 Month 12	0.1154	0.0120	0.000	9,893
2014 Month 3	0.1257	0.0123	0.000	9,252
Age > 45 Years				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.1568	0.0380	0.0000	5,883
2012 Month 9	0.1514	0.0315	0.0000	5,753
2012 Month 12	0.1397	0.0280	0.0000	5,632
2013 Month 3	0.1438	0.0253	0.0000	5,421
2013 Month 6	0.1348	0.0252	0.0000	5,145
2013 Month 9	0.1336	0.0270	0.0000	4,899
2013 Month 12	0.1301	0.0254	0.0000	4,665
2014 Month 3	0.1201	0.0241	0.0000	4,365
Source: Indecon analysis				

Finally, Table 4.10 presents the weighted average ATET for both age groups.

Table 4.10: IPWRA Model – Age Stratification - Weighted Average ATET	
	Weighted Average ATET (Percentage Points)
IPWRA Model	
Age < 45 Years	11.6
Age > 45 Years	13.7
Source: Indecon analysis	

Indecon has also run the IPWRA model on a sub-sample of the JLD stratified by occupation. While the dataset contains 99 different 'previous' occupational codes, we considered an important robustness check to stratify the sample by occupation based on 'professional' and 'non-professional'. This was done by previous researchers such as the ESRI when studying the effectiveness of the back to education programme in Ireland, in an attempt to control for potential un-observables, such as ability; however, they did not present results for both occupational types.

Table 4.11 shows the model output for March 2013. The dependent variable in this model is employment one year on from the given date. The treatment variable is measured from the same point in time (i.e., if the individual had received at least four months of JobBridge in the 12 preceding months). The model includes the covariates discussed previously in the main IPWRA model.

Table 4.11: IPWRA ATET estimate – Occupation Stratification					
Stratification:	**Professional Occupations**				
Observations:	**3,035**				
	Coefficient	**Standard Error**	**P>z**	**95% Confidence Interval**	
ATET					
treat_back1_2013m3	0.174	0.024	0.000	0.127	0.222
POmean					
treat_back1_2013m3	0.403	0.019	0.000	0.365	0.441
Stratification:	**Non-professional Occupations**				
Observations:	14,014				
	Coefficient	**Standard Error**	**P>z**	**95% Confidence Interval**	
ATET					
treat_back1_2013m3	0.101	0.012	0.000	0.078	0.124
POmean					
treat_back1_2013m3	0.374	0.008	0.000	0.357	0.391
Source: Indecon analysis					

Again, Indecon would caution against placing too much emphasis on sub model results.

The results show the difference between the ATET for the two types of workers.

Table 4.12 outlines the ATET findings for each quarter across the occupation stratification.

Table 4.12: IPWRA ATET estimate – Occupation Stratification – All Months				
Professional Occupations				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.0871	0.0304	0.004	3,218
2012 Month 9	0.0917	0.0268	0.001	3,205
2012 Month 12	0.1458	0.0250	0.000	3,124
2013 Month 3	0.1744	0.0242	0.000	3,035
2013 Month 6	0.1834	0.0242	0.000	2,931
2013 Month 9	0.1941	0.0250	0.000	2,745
2013 Month 12	0.1498	0.0258	0.000	2,468
2014 Month 3	0.1377	0.0264	0.000	2,243
Non-Professional Occupations				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.1359	0.0166	0.0000	14,472
2012 Month 9	0.1148	0.0138	0.0000	14,385
2012 Month 12	0.1051	0.0127	0.0000	14,209
2013 Month 3	0.1009	0.0118	0.0000	14,014
2013 Month 6	0.0990	0.0116	0.0000	13,394
2013 Month 9	0.1064	0.0120	0.0000	12,813
2013 Month 12	0.1078	0.0122	0.0000	12,090
2014 Month 3	0.1172	0.0121	0.0000	11,374
Source: Indecon analysis				

Table 4.13 presents the weighted average ATET for both occupational groups.

Table 4.13: IPWRA Model – Occupation Stratification - Weighted Average ATET	
	Weighted Average ATET (Percentage Points)
IPWRA Model	
Professional Occupations	15.1
Non-Professional Occupations	10.9
Source: Indecon analysis	

Indecon has also stratified the JLD by region in order to assess the extent to which the JobBridge Programme had differing impacts in different parts of the country. It is notable that we are not able to separate the data by rural and non-rural, which might be an important variable. A variable indicating the county where the local social welfare office to which the individual has reported their claim is contained in the JLD.

Table 4.14 outlines the results of the model for March 2013.

Table 4.14: IPWRA ATET estimate – Regional Stratification					
Stratification:	**Greater Dublin and Cork**				
Observations:	**8,526**				
	Coefficient	**Standard Error**	**P>z**	**95% Confidence Interval**	
ATET					
treat_back1_2013m3	0.139	0.015	0.000	0.110	0.168
POmean					
treat_back1_2013m3	0.396	0.011	0.000	0.374	0.418
Stratification:	**Outside Greater Dublin and Cork**				
Observations:	8,523				
	Coefficient	**Standard Error**	**P>z**	**95% Confidence Interval**	
ATET					
treat_back1_2013m3	0.099	0.015	0.000	0.070	0.129
POmean					
treat_back1_2013m3	0.364	0.011	0.000	0.343	0.385
Source: Indecon analysis					

Table 4.15 outlines the detailed findings of the IPWRA model stratified by region. The pattern of a higher ATET in the Dublin, mid-east and south-west region is observable for each month in which the model is run.

Table 4.15: IPWRA ATET estimate – Regional Stratification – All Months				
Greater Dublin and Cork				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.1301	0.0200	0.000	8,886
2012 Month 9	0.1183	0.0169	0.000	8,796
2012 Month 12	0.1309	0.0157	0.000	8,674
2013 Month 3	0.1390	0.0150	0.000	8,526
2013 Month 6	0.1325	0.0147	0.000	8,105
2013 Month 9	0.1358	0.0155	0.000	7,717
2013 Month 12	0.1238	0.0156	0.000	7,155
2014 Month 3	0.1294	0.0160	0.000	6,623
Outside Greater Dublin and Cork				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.1179	0.0209	0.0000	8,804
2012 Month 9	0.1052	0.0176	0.0000	8,794
2012 Month 12	0.1014	0.0163	0.0000	8,659
2013 Month 3	0.0994	0.0149	0.0000	8,523
2013 Month 6	0.1050	0.0148	0.0000	8,220
2013 Month 9	0.1159	0.0153	0.0000	7,841
2013 Month 12	0.1077	0.0153	0.0000	7,403
2014 Month 3	0.1169	0.0151	0.0000	6,994
Source: Indecon analysis				

Table 4.16 presents the weighted average ATET for both regional groups.

Table 4.16: IPWRA Model – Regional Stratification - Weighted Average ATET	
	Weighted Average ATET (Percentage Points)
IPWRA Model	
Greater Dublin and Cork	13.1
Outside Greater Dublin and Cork	10.8
Source: Indecon analysis	

Indecon has also undertaken some additional analysis on a sub-sample of the JLD stratified between high-earners and non-high-earners.

In the case of a treatment programme, ability or motivation are typically unobserved confounders. This stratification by earnings attempts to account for one of the key unobservable factors in the model. There is no variable in the JLD which serves to accurately assess each individual's motivation and innate abilities. Previous earnings serve as a proxy for these unobservable factors.

To facilitate the stratification of the sample by earnings Indecon created a variable 'high earners', which is equal to 1 if an individual is a 'high earner' and zero if they are middle or low. This variable was created for all individuals. This variable was calculated using the maximum across the time variables for the annual earnings data from Revenue.

Following this, the sample was split by professional and non-professional occupations, and by six age categories (age is a well-known proxy for experience). The 75th percentile of the earnings distribution for the max earnings for each type, e.g., professional-age-type1 (18-24), non-professional-age-type1, non-professional-age_type6 (over 60) was then identified. Those with earnings at or above the 75th percentile were deemed 'high' earners, and those with less than that figure were classified as 'non-high' earners.

The sample was then split by high- and non-high earners and the analysis was completed on a random sample.

Table 4.17 outlines the detailed IPWRA model outputs for the models run on the high-earners and non-high-earner sub-samples for March 2013. The dependent variable in these models is employment one year after the given date.

Table 4.17: IPWRA ATET estimate – Earnings Stratification					
Stratification:	**High Earners**				
Observations:	**7,633**				
	Coefficient	**Standard Error**	**P>z**	**95% Confidence Interval**	
ATET					
treat_back1_2013m3	0.198	0.018	0.000	0.163	0.232
POmean					
treat_back1_2013m3	0.398	0.015	0.000	0.369	0.428
Stratification:	**Non-High Earners**				
Observations:	12,394				
	Coefficient	**Standard Error**	**P>z**	**95% Confidence Interval**	
ATET					
treat_back1_2013m3	0.108	0.012	0.000	0.084	0.132
POmean					
treat_back1_2013m3	0.307	0.008	0.000	0.291	0.323
Source: Indecon analysis					

Table 4.18 outlines the ATET findings for each month when stratifying the sample between high earners and non-high earners.

Table 4.18: IPWRA Model - ATET - High and Non-High Earners – All Months

High Earners				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.2187	0.0239	0.000	8,303
2012 Month 9	0.2030	0.0195	0.000	8,118
2012 Month 12	0.2028	0.0182	0.000	7,918
2013 Month 3	0.1976	0.0178	0.000	7,633
2013 Month 6	0.2048	0.0175	0.000	7,282
2013 Month 9	0.1949	0.0183	0.000	6,843
2013 Month 12	0.2105	0.0188	0.000	6,420
2014 Month 3	0.2043	0.0188	0.000	5,934
Non-High Earners				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.1146	0.0174	0.0000	12,394
2012 Month 9	0.0960	0.0147	0.0000	12,473
2012 Month 12	0.1001	0.0136	0.0000	12,391
2013 Month 3	0.1084	0.0123	0.0000	12,394
2013 Month 6	0.1005	0.0120	0.0000	12,038
2013 Month 9	0.1188	0.0123	0.0000	11,656
2013 Month 12	0.0973	0.0125	0.0000	11,045
2014 Month 3	0.0986	0.0122	0.0000	10,601

Source: Indecon analysis

Beyond the stratification tests discussed here, Indecon also undertook a number of other sensitivity tests on our models. The results of these tests can be found in the annex of this report. These tests included versions of the model which ensure that the results of our main models were not sensitive to the previous participation of individuals in other labour market activation programmes. We included in our sensitivity model a control variable for previous participation in other labour market activation schemes. Including this control variable has a negligible impact on the ATET estimates.

As a further sensitivity test, we also tested the impact for the IPWRA model results on a sample excluding individuals who have participated in other labour market activation programmes over specified periods. Excluding these individuals did not have a significant impact on the ATET estimates relative to the main model. Detailed results of these sensitivity tests can be found in the annex.

4.5 Summary

- The evidence from the Indecon modelling indicates that JobBridge has a positive impact of about 12 percentage points on participants' likelihood of finding a job between one and two years after JobBridge internship completion (average treatment effect). Interestingly, very similar results are obtained from the two alternative models utilised.
- Our estimation suggests that matched individuals on the Live Register had a 36.6% probability of securing employment within one year in the absence of JobBridge.
- With the JobBridge treatment, interns' probability of securing employment within one year increased to 48.4% (i.e., an 11.8 percentage point difference).
- The implication of this finding is that the Programme provides an additionality, in terms of the probability of becoming employed as a result of participating in JobBridge, of 32%.
- The results suggest much more positive impacts for JobBridge than have been evident for many other labour market activation programmes. This evidence demonstrates that the Programme has been effective in enhancing the probability of interns subsequently obtaining paid employment.

5 Findings from Survey Research among Interns and Host Organisations

5.1 Introduction

Indecon conducted two main survey streams in order to ascertain the views and progression outcomes of interns and host organisations.

Each survey stream achieved a very high level of response, as can be seen in Table 5.1 below. Indecon also tailored individual correspondence in order to follow up with non-respondents to achieve a higher level of response. The number of responses provides a very strong basis for our analysis and assessment of the views and perceptions on the JobBridge scheme. Of particular significance is that all of the interns were given an opportunity to input, and we collated the insights of 10,477 interns, which provides a very strong foundation for the research. As a result of the very large number of respondents, the survey evidence is much stronger than could be obtained from selective anecdotal material or from the results of very small samples.

Table 5.1: Summary of Response Rates to Surveys of JobBridge Interns and Host Organisations

Survey Stream	No. of Responses	Response Rate
Survey of JobBridge Interns	10,477	33.5%
Survey of JobBridge Host Organisations	4,558	23.3%

Source: Indecon

5.2 Reasons for Participating in JobBridge

The most common motivation for participating on JobBridge was that the respondent could not obtain employment. Table 5.2 shows that 41.5% of respondents stated that not being able to obtain employment was their motivation for participating on JobBridge. An interest in training and development opportunities and a view that the scheme was an opportunity to enhance employment prospects with the host organisation were the next two most popular answers, with 32.4% and 30.4% of respondents, respectively. The enhancement of career goals and the opportunity to enhance employment prospects with another organisation had similar levels of responses, with just over a quarter of respondents stating that these were their motivation for participation.

Table 5.2: JobBridge Interns - Motivation for Participation

What was your main motivation for participating on the JobBridge scheme?	% of Respondents
Could not obtain employment	41.5%
Interested in training and development opportunities	32.4%
Viewed scheme as opportunity to enhance employment prospects with host organisation	30.4%
Viewed scheme as opportunity to enhance employment prospects with other organisations	26.1%
Interested in obtaining JobBridge Top-Up Payment	4.2%
To enhance career goals	27.0%
Other	4.7%

Source: Indecon and DSP Confidential Survey of JobBridge Interns
Note: Percentages do not add up to 100% due to the option of selecting multiple responses

Table 5.3 provides a breakdown of the reasoning for host organisations' participation in the JobBridge scheme. The most important reason for hosts was that it enabled them to evaluate potential future employees, with 58.9% of those surveyed saying this reason was very important to them. Securing access to additional skills and contributing to national policy by providing internship opportunities to the unemployed were the next two reasons with the highest response numbers for the reason being very important or important. 35.5% deemed the provision of a low-cost temporary addition to the workforce as being an important reason for using JobBridge.

Table 5.3: JobBridge Host Organisations - Views on Reasons for JobBridge Participation (Percentage of Respondents)

Please indicate the level of significance you would attach to each of the following reasons why your organisation has participated in the JobBridge scheme:	Very Important	Important	Neither Important Nor Unimportant	Unimportant	Not at all Important
Enables you to evaluate potential future employees	58.9%	31.2%	6.4%	1.9%	1.5%
Provides a low-cost temporary addition to your workforce	18.5%	35.5%	25.4%	10.6%	9.9%
Contributes to national policy by providing internship opportunities to unemployed	29.4%	44.3%	19.2%	4.2%	3.0%
Overcomes restrictions on increasing employment in your organisation	16.7%	28.6%	25.6%	11.8%	17.3%
Secures access to additional skills	24.8%	46.1%	19.2%	5.6%	4.4%
Fulfils corporate social responsibility commitments	15.1%	33.6%	31.6%	8.6%	11.1%

Source: Indecon and DSP Confidential Survey of JobBridge Host Organisations

5.3 Progression Outcomes

One of the main objectives of JobBridge was to achieve a progression to employment. The impact of JobBridge on progressions to employment compared to a counterfactual control group was examined in Section 4. It is also important to consider from the survey evidence the current employment position of interns. In total, 64.2% of interns were employed either with their host organisation, in the same sector as their host organisation or in a different sector. 9.6% respondents stated that they are pursuing further education or training (including those pursuing third-level education). 14.3% of respondents indicated that they were unemployed and in receipt of a Jobseekers payment, with a further 3.4% of respondents on another social welfare payment scheme. 6% stated that they were on another employment scheme such as JobsPlus, JobPath, CE, Tús, etc. 3.4% respondents have emigrated and no longer live in Ireland.

Table 5.4: JobBridge Interns - Current Status	
Please indicate which of the following best describes your current situation:	**% of Respondents**
Employed with my JobBridge Host Organisation	26.7%
Employed with another Organisation in same sector as Host Organisation	12.8%
Employed in another sector	24.7%
Total in employment	**64.2%**
Was employed on a short-term contract, which has now ended	3.9%
Pursuing further education or training	6.4%
Pursuing a third-level degree	3.2%
Participating in JobsPlus scheme	1.6%
Participating in JobPath	1.3%
On another employment activation scheme (e.g. CE, Tús, Gateway)	3.1%
Unemployed (in receipt of a Jobseekers payment)	14.3%
On another social welfare payment/inactive	3.4%
Have emigrated	3.4%
Other	7.9%
Source: Indecon and DSP Confidential Survey of JobBridge Interns Note: Percentages do not add up to 100% due to the option of selecting multiple responses	

Table 5.6 shows that a higher proportion of those between the ages of 25 and 34 are in employment (68.6%) than any other age group. The percentage in employment falls the further away from this age group a person gets. Those between 15 and 19 (53.8%) and those over the age of 54 (55.2%) have the two lowest proportions of people currently in employment, according to Indecon's survey.

Table 5.5: Progression Outcomes - Current Status of JobBridge Participants by Age (Percentage of Respondents)							
Overall, how satisfied or dissatisfied were you with the JobBridge scheme?	**All Responses**	**15 to 19 yrs**	**20 to 24 yrs**	**25 to 34 yrs**	**35 to 44 yrs**	**45 to 54 yrs**	**55 and over**
Employed with my JobBridge Host Organisation	26.7%	30.8%	28.6%	26.6%	26.8%	26.2%	25.6%
Employed with another Organisation in same sector as Host Organisation	12.8%	7.7%	11.6%	15.4%	11.6%	9.1%	7.4%
Employed in another sector	24.7%	15.4%	20.8%	26.5%	24.0%	23.3%	22.2%
Total in Employment	**64.2%**	**53.8%**	**61.0%**	**68.6%**	**62.4%**	**58.5%**	**55.2%**
Was employed on a short-term contract, which has now ended	3.9%	0.0%	4.4%	3.7%	4.3%	4.0%	4.1%
Pursuing further education or training	6.4%	7.7%	9.0%	6.5%	6.1%	6.2%	4.3%
Pursuing a third-level degree	3.2%	0.0%	4.5%	4.0%	2.6%	1.2%	1.4%
Participating in JobsPlus scheme	1.6%	0.0%	2.7%	1.4%	1.7%	1.4%	0.5%
Participating in JobPath	1.3%	0.0%	0.7%	1.0%	1.2%	2.0%	2.4%
On another employment activation scheme (e.g. CE, Tús, Gateway)	3.1%	0.0%	2.5%	2.3%	3.1%	4.9%	6.0%
Unemployed (in receipt of a Jobseekers payment)	14.3%	38.5%	19.0%	11.6%	15.2%	17.4%	17.4%
On another social welfare payment/inactive	3.4%	7.7%	2.6%	3.2%	3.6%	3.7%	3.4%
Have emigrated	3.4%	0.0%	2.2%	5.4%	2.2%	0.6%	0.7%
Other	7.9%	0.0%	7.0%	6.8%	8.5%	9.6%	12.3%
Source: Indecon and DSP Confidential Survey of JobBridge Interns							

The following table presents a breakdown of the current status of interns by their level of education. 64.3% of respondents who answered both questions are currently in employment, either in the same sector as their internship or in a different sector. When broken down by level of education 67.5% of those with a third-level education are currently in employment, compared to 57.8% of those with a non-third-level education. 12.1% of those with third-level education are unemployed and in receipt of a Jobseekers payment, compared to 18.6% of those without a third-level education.

Table 5.6: Progression Outcomes - Current Status of JobBridge Participants by Level of Education (Percentage of Respondents)

Please indicate which of the following best describes your current situation:	All Responses	Third Level Graduate	Non-Third Level Graduate
Employed with my JobBridge Host Organisation	26.7%	25.6%	28.9%
Employed with another Organisation in same sector as Host Organisation	12.8%	15.3%	7.8%
Employed in another sector	24.7%	26.6%	21.1%
Percentage in Employment	**64.2%**	**67.5%**	**57.8%**
Was employed on a short-term contract, which has now ended	3.9%	3.9%	3.8%
Pursuing further education or training	6.4%	5.9%	7.4%
Pursuing a third-level degree	3.2%	3.1%	3.3%
Participating in JobsPlus scheme	1.6%	1.3%	2.0%
Participating in JobPath	1.3%	1.1%	1.6%
On another employment activation scheme (e.g. CE, Tús, Gateway)	3.1%	2.6%	4.1%
Unemployed (in receipt of a Jobseekers payment)	14.3%	12.1%	18.6%
On another social welfare payment/inactive	3.4%	2.9%	4.2%
Have emigrated	3.4%	4.4%	1.4%
Other	7.9%	7.9%	7.9%

Source: Indecon and DSP Confidential Survey of JobBridge Interns
Note: Figures may not add up to 100% due to the ability to select multiple responses

Table 5.7 shows that 83.2% of third-level graduates have gained paid employment at some stage following their internship, compared to 71.2% of non-third-level graduates. This suggests while the level education may have an impact on the likelihood of a JobBridge intern gaining paid employment following an internship but encouragingly a majority of those without third-level education also gained paid employment at some stage since the internships.

Table 5.7: Progression Outcomes - If Intern Gained Paid Employment at any Stage since Internship by Level of Education (Percentage of Respondents)

	All responses	Third Level Graduate	Non-Third Level Graduate
Gained paid employment at any stage since internship	79.1%	83.2%	71.2%

Source: Indecon and DSP Confidential Survey of JobBridge Interns

Table 5.8 shows not surprisingly that a higher percentage of those who had a shorter spell of unemployment prior to their internship are currently in employment. 71.5% of those who were unemployed for less than six months before their internships are currently in employment, compared to 50.5% who had been unemployed for over three years prior to their JobBridge internship. Thus unemployment rates are higher amongst those who had been unemployed for longer prior to their internship (23.9% for those unemployed for over three years prior, and 9.5% for those unemployed for less than six months). However, even including those who previously were long-term unemployed, the majority of JobBridge interns are now in employment.

Table 5.8: Progression Outcomes - Current Status of JobBridge Participants by Length of Time Unemployed Prior to Internship (Percentage of Respondents)

Please indicate which of the following best describes your current situation:	All Responses	Less than 6 months	6 months	Over 6 months and up to 12 months	Over 12 months and up to 2 years	Over 2 years and up to 3 years	More than 3 years
Employed with my JobBridge Host Organisation	26.7%	25.5%	24.7%	26.4%	27.1%	30.9%	27.4%
Employed with another Organisation in same sector as Host Organisation	12.8%	16.9%	16.7%	13.3%	10.7%	9.4%	8.1%
Employed in another sector	24.7%	29.2%	32.0%	27.7%	22.4%	18.4%	15.1%
Percentage in Employment	**64.2%**	**71.5%**	**73.3%**	**67.5%**	**60.2%**	**58.7%**	**50.5%**
Was employed on a short-term contract, which has now ended	3.9%	4.1%	4.2%	3.6%	4.3%	3.1%	3.7%
Pursuing further education or training	6.4%	5.4%	6.2%	5.6%	7.4%	6.0%	8.3%
Pursuing a third-level degree	3.2%	3.4%	2.5%	3.4%	2.9%	2.5%	3.6%
Participating in JobsPlus scheme	1.6%	1.0%	1.1%	1.6%	1.3%	2.6%	2.4%
Participating in JobPath	1.3%	0.7%	0.8%	0.7%	1.9%	1.4%	2.4%
On another employment activation scheme (e.g. CE, Tús, Gateway)	3.1%	2.1%	1.8%	2.8%	4.1%	2.8%	4.8%
Unemployed (in receipt of a Jobseekers payment)	14.3%	9.5%	7.3%	12.9%	16.2%	17.8%	23.9%
On another social welfare payment/inactive	3.4%	2.1%	2.9%	3.0%	3.5%	5.1%	5.0%
Have emigrated	3.4%	5.0%	5.2%	3.7%	2.7%	1.3%	1.0%
Other	7.9%	6.9%	5.9%	7.2%	9.3%	8.9%	9.5%

Source: Indecon and DSP Confidential Survey of JobBridge Interns
Note: Figures may not add up to 100% due to the ability to select multiple responses

Similar to the above table, Table 5.9 shows that a greater percentage of those who were unemployed for a shorter spell prior to JobBridge gained employment at some stage since their internship.

Table 5.9: Progression Outcomes - If Intern Gained Paid Employment at any Stage since Internship by Length of Time Unemployed Prior to Internship (Percentage of Respondents)							
	All Responses	**Less than 6 months**	**6 months**	**Over 6 months and up to 12 months**	**Over 12 months and up to 2 years**	**Over 2 years and up to 3 years**	**More than 3 years**
Gained paid employment at any stage since internship	79.1%	87.6%	88.6%	84.9%	76.3%	72.6%	59.8%
Source: Indecon and DSP Confidential Survey of JobBridge Interns							

Table 5.10 shows the current status of interns, based on the sector in which the host organisation was based. There is a higher percentage of those in employment (68.2%), who were hosted by a private sector or commercial organisation compared to those in public sector organisations (59.8%) or in community and voluntary organisations (55.7%). A greater percentage of those who were hosted by community or voluntary organisation are pursuing further education or third-level degrees (12.2%) compared to either of the other two sectors. Also of note is that only 19.8% of interns with public sector organisations were currently employed with their host organisation compared to 31% of interns in commercial organisations.

Table 5.10: Progression Outcomes - Current Status of Intern by Sector of Host Organisation (Percentage of Respondents)				
Please indicate which of the following best describes your current situation:	**All Responses**	**Private Sector/Commercial Organisation (incl. Commercial Semi-State Organisations)**	**Public Sector Organisation (incl. Non-Commercial Semi-State Organisations)**	**Community & Voluntary Sector Organisation**
Employed with my JobBridge Host Organisation	26.7%	31.0%	19.8%	19.5%
Employed with another Organisation in same sector as Host Organisation	12.8%	13.5%	12.6%	9.5%
Employed in another sector	24.7%	23.6%	27.4%	26.7%
Percentage in Employment	**64.2%**	**68.2%**	**59.8%**	**55.7%**
Was employed on a short-term contract, which has now ended	3.9%	3.6%	4.6%	4.2%
Pursuing further education or training	6.4%	6.1%	6.3%	8.5%
Pursuing a third-level degree	3.2%	3.1%	3.5%	3.7%
Participating in JobsPlus scheme	1.6%	1.8%	1.2%	1.7%
Participating in JobPath	1.3%	1.0%	1.7%	1.3%
On another employment activation scheme (e.g. CE, Tús, Gateway)	3.1%	2.6%	3.5%	5.8%
Unemployed (in receipt of a Jobseekers payment)	14.3%	12.8%	16.1%	17.2%
On another social welfare payment/inactive	3.4%	3.0%	4.0%	3.4%
Have emigrated	3.4%	3.0%	4.0%	4.3%
Other	7.9%	7.4%	8.4%	9.6%
Source: Indecon and DSP Confidential Survey of JobBridge Interns Note: Figures may not add up to 100% due to the ability to select multiple responses				

Table 5.11 shows that those who interned in the private sector or commercial organisations have a greater proportion of people who gained paid employment at some stage following their internship (81.9%) compared to the position for public sector organisations.

Table 5.11: Progression Outcomes - If Intern Gained Paid Employment at any Stage since Internship by Sector of Host Organisation (Percentage of Respondents)

	All Responses	Private Sector/Commercial Organisation (incl. Commercial Semi-State Organisations)	Public Sector Organisation (incl. Non-Commercial Semi-State Organisations)	Community & Voluntary Sector Organisation
Gained paid employment at any stage since internship	79.1%	81.9%	77.8%	72.3%

Source: Indecon and DSP Confidential Survey of JobBridge Interns

Table 5.12 breaks down the current status of interns based on how long ago they finished their internship. Over 70% of those who completed their internship over two years ago are currently in employment, compared to 58.2% who finished less than one month ago. However, a higher percentage of those who have completed their internship more recently are employed in the same host organisation as compared to those who completed their internship over a year ago.

Table 5.12: Progression Outcomes - Current Status of JobBridge Participants by Length of Time since Finishing Internship (Percentage of Respondents)

Please indicate which of the following best describes your current situation:	All Responses	Completed Internship Less than 1 Month Ago	Completed 1-2 Months	Completed 3-4 Months	Completed 5-6 Months	Completed 7-12 Months	Completed 13-24 Months	Completed Over 24 Months Ago
		May 2016	March-April 2016	January-February 2016	November-December 2015	May-October 2015	April 2015-May 2014	Before May 2014
Employed with my JobBridge Host Organisation	26.7%	36.1%	36.8%	35.4%	39.5%	30.1%	25.8%	23.2%
Employed with another Organisation in same sector as Host Organisation	12.8%	7.4%	7.3%	7.8%	7.9%	9.0%	12.2%	15.9%
Employed in another sector	24.7%	14.8%	6.5%	11.3%	13.0%	17.6%	23.6%	31.7%
Percentage in Employment	**64.2%**	**58.2%**	**50.6%**	**54.5%**	**60.5%**	**56.6%**	**61.6%**	**70.8%**
Was employed on a short-term contract, which has now ended	3.9%	5.7%	1.6%	4.0%	2.9%	4.7%	4.9%	3.2%
Pursuing further education or training	6.4%	4.9%	5.3%	6.3%	7.9%	8.1%	7.6%	5.1%
Pursuing a third-level degree	3.2%	0.8%	1.6%	2.0%	2.5%	3.5%	3.5%	3.2%
Participating in JobsPlus scheme	1.6%	2.5%	3.2%	2.5%	4.2%	2.9%	1.6%	0.7%
Participating in JobPath	1.3%	0.0%	1.6%	2.3%	2.5%	2.2%	1.2%	0.8%
On another employment activation scheme (e.g. CE, Tús, Gateway)	3.1%	1.6%	2.0%	0.8%	2.3%	2.8%	4.6%	2.6%
Unemployed (in receipt of a Jobseekers payment)	14.3%	16.4%	34.8%	27.6%	21.8%	20.2%	13.8%	9.4%
On another social welfare payment/inactive	3.4%	2.5%	3.6%	3.0%	2.5%	3.3%	3.7%	3.3%
Have emigrated	3.4%	0.0%	1.6%	1.0%	1.5%	1.7%	3.0%	4.7%
Other	7.9%	14.8%	4.0%	7.3%	8.2%	7.7%	8.5%	7.3%

Source: Indecon and DSP Confidential Survey of JobBridge Interns
Note: Figures may not add up to 100% due to the ability to select multiple responses

Table 5.13 reinforces the figures from the previous tables showing that a greater percentage of those who completed their internship over two years ago have secured paid employment at some stage since their internship (88.8%) compared to those who have completed their internship more recently. Given the time needed for job search this is not surprising. It is, however, insightful in coming to a judgement on the sustainability of employment.

Table 5.13: Progression Outcomes - If Intern Gained Paid Employment at any Stage since Internship by Length of Time since Internship Finishing (Percentage of Respondents)

	All Responses	Completed Internship Less than 1 Month	Completed 1-2 Months	Completed 3-4 Months	Completed 5-6 Months	Completed 7-12 Months	Completed 13-24 Months	Completed Over 24 Months Ago
		May 2016	March-April 2016	January-February 2016	November-December 2015	May-October 2015	April 2015-May 2014	Before May 2014
Gained paid employment at any stage since internship	79.1%	41.0%	53.8%	57.8%	66.2%	70.7%	79.2%	88.8%

Source: Indecon and DSP Confidential Survey of JobBridge Interns

Table 5.14 shows that 79.1% of respondents have had a paid job at some stage since their internship. The remaining 20.9% stated that they had not entered paid employment since their internship.

Table 5.14: JobBridge Interns - Gaining Employment since Internship

Have you had a paid job at any stage since completing your JobBridge internship?	% of Respondents
Yes	79.1%
No	20.9%

Source: Indecon and DSP Confidential Survey of JobBridge Interns

Respondents were then asked whether or not the job they had secured following their internship was full or part-time, and whether or not it was a permanent or temporary position. 78.1% of respondents indicated that their position was a full-time one, with 75% of these full-time positions being permanent positions. 21.8% of respondents replied that their position was part-time, with the split between permanent and temporary being close to 50:50 in this case.

Table 5.15: JobBridge Interns - Employment since Internship

If you have secured a job (either with your JobBridge host organisation or with another organisation) since completing your JobBridge internship, is this job:	% of Respondents
Full-time, Permanent	58.8%
Part-time, Permanent	11.0%
Full-time, Temporary	19.3%
Part-time, Temporary	10.8%

Source: Indecon and DSP Confidential Survey of JobBridge Interns

An important input to our evaluation of the nature of the experience secured by interns was obtained from detailed views on interns on aspects of the Programme.

5.4 Views on the Scheme

Table 5.16 shows the views of interns on various statements regarding JobBridge. 70.2% of respondents either agreed or strongly agreed that the internship gave them new job skills, the highest level of agreement with any of the statements. Conversely, the largest degree of disagreement was with the statement that the internship gave the intern the opportunity to secure formal training as part of placement with 33% either disagreeing (17.7%) or strongly disagreeing (15.3%) with the statement. All of the statements had a greater percentage agreeing with the statement than disagreeing, with 'agree' being the most common response for each statement.

Table 5.16: JobBridge Interns - Levels of Agreement with Statements on JobBridge (Percentage of Respondents)

Please give your level of agreement or disagreement with each of the following statements regarding your JobBridge work experience:	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Gave me new job skills	30.6%	39.6%	11.2%	9.0%	9.6%
Provided opportunity to gain quality work experience	31.1%	38.9%	11.3%	9.0%	9.7%
Opportunity to secure formal training as part of placement	18.8%	30.2%	18.1%	17.7%	15.3%
Improved my self-confidence	22.7%	35.5%	17.6%	10.6%	13.6%
Helped me to identify job opportunities suitable to my abilities	18.7%	35.8%	20.5%	13.3%	11.7%
Improved my chances of gaining employment	24.3%	34.1%	17.6%	11.4%	12.5%
Directly helped my progression into employment	23.1%	26.0%	18.1%	16.6%	16.2%
Kept me close to the job market	17.3%	34.6%	21.7%	13.7%	12.8%
Helped me establish contacts/networks	18.6%	33.3%	20.4%	15.4%	12.3%
Enhanced my career goals	19.4%	32.8%	21.9%	12.9%	13.1%

Source: Indecon and DSP Confidential Survey of JobBridge Interns

Table 5.17 indicates that hosts organisations have a positive view on the experience provided to interns, with a majority responding yes to each of the statements in the table below. As could be seen from the table, over 50% of hosts agreed with each statement on the nature of the work experience provided to interns by hosts.

Table 5.17: JobBridge Host Organisations - Views On Nature of Work Experience (Percentage of Respondents)

Please indicate your views on the nature of the work experience provided to interns:	Yes	No	Don't Know
Gave intern new job or other specific skills	85.6%	13.4%	0.9%
Provided opportunity to gain quality work experience	95.9%	3.7%	0.3%
Opportunity to secure formal training as part of placement	57.9%	31.6%	10.5%
Improved confidence of interns and contributed to their personal development	87.9%	11.2%	0.9%
Helped interns to identify job opportunities suitable to their abilities	73.5%	23.4%	3.1%
Increased participants' chances of gaining employment, that is, their employability	89.1%	9.8%	1.1%
Directly helped interns' progression into employment	76.7%	18.1%	4.5%
Kept participants close to the job market	68.0%	25.6%	4.8%
Helped interns establish contacts/networks	60.6%	30.2%	7.6%

Source: Indecon and DSP Confidential Survey of JobBridge Host Organisations

Table 5.18 shows the level of satisfaction among interns with the JobBridge scheme. The highest level of satisfaction was with the quality of work experience provided by the host organisation with 30.4% being very satisfied and a further 36.9% being satisfied. The value of the JobBridge Top-Up Payment was the aspect with the highest dissatisfaction rates. 28% of respondents were very dissatisfied, with a further 23.4% dissatisfied. This was the only aspect where over 50% of respondents were either very dissatisfied or dissatisfied. However, of concern is that not all interns have benefited equally from the Programme. Of note is that 16.2% strongly disagreed that JobBridge had directly helped their progression to employment as discussed in Table 5.16.

Table 5.18: JobBridge Interns - Views on Satisfaction Levels (Percentage of Respondents)

How satisfied or dissatisfied were you with each of the following aspects of your JobBridge internship?	Very Satisfied	Satisfied	Neither Satisfied nor Dissatisfied	Dissatisfied	Very Dissatisfied
Quality of work experience provided by host organisation	30.4%	36.9%	12.3%	10.1%	10.3%
Level of on-the-job training and development opportunities provided	23.2%	33.4%	17.0%	13.7%	12.7%
Choice, quality and relevance of internship opportunities that fit with my interests/skills	21.7%	38.1%	20.5%	10.7%	8.9%
Creation of networks and contacts	17.2%	32.6%	26.3%	13.1%	10.7%
Extent to which scheme met your expectations	16.9%	33.8%	19.6%	13.9%	15.8%
Impact of internship on my self-confidence / personal development/ job-readiness	21.7%	36.5%	20.8%	8.4%	12.6%
Value of the JobBridge Top-Up Payment	7.3%	19.8%	21.5%	23.4%	28.0%
Host organisation delivered what they were supposed to, as I understood the scheme requirements	26.8%	33.9%	15.4%	10.3%	13.5%
DSP support in getting an internship, and monitoring during internship	9.7%	24.2%	30.1%	16.2%	19.8%
Improvement in employment prospects	19.0%	34.8%	22.5%	10.4%	13.3%

Source: Indecon and DSP Confidential Survey of JobBridge Interns

Table 5.19 shows that there was a high level of satisfaction with various aspects of the JobBridge scheme amongst host organisations. 51.5% of respondents stated that they were very satisfied with the work performance and engagement of the intern during the internship, with a further 38% stating that they were satisfied with this aspect. The highest level of dissatisfaction was with the suitability and job readiness of the prospective pool of interns (9.5% dissatisfied and 2.4% very dissatisfied).

Table 5.19: JobBridge Host Organisations - Views on Satisfaction Levels of Aspects of Scheme (Percentage of Respondents)					
Please indicate how satisfied or dissatisfied you were with respect to the following aspects of the JobBridge scheme:	**Very Satisfied**	**Satisfied**	**Neither Satisfied nor Dissatisfied**	**Dissatisfied**	**Very Dissatisfied**
Overall administrative process used by Department of Social Protection during the scheme	47.2%	41.0%	7.8%	3.1%	1.0%
The suitability and job readiness of the prospective pool of interns	23.3%	44.2%	20.6%	9.5%	2.4%
Process for internship vacancy notification/ candidate specification/selection	31.7%	47.7%	15.0%	4.5%	1.1%
Reporting and monitoring requirements including standard agreement and monthly returns	38.5%	46.2%	11.6%	2.6%	1.1%
The work performance and engagement of the intern during the internship	51.5%	38.0%	5.9%	3.2%	1.4%
Support for queries, website toolkits etc.	28.8%	40.4%	24.8%	4.4%	1.5%
Source: Indecon and DSP Confidential Survey of JobBridge Host Organisations					

Table 5.20 presents the views of interns on the administration of the JobBridge scheme. There were greater levels of satisfaction with each of the aspects listed below than dissatisfaction, with the highest level of satisfaction (64%) being for the intern 'having the right information'. The level of support from the case officer in the application process had the highest level of dissatisfaction (26.7%), with 13.7% of respondents being very dissatisfied with this element.

Table 5.20: JobBridge Interns - Views on Administration (Percentage of Respondents)					
Please indicate below your views on the administration of the JobBridge scheme from initial application to finishing your internship.	**Very Satisfied**	**Satisfied**	**Neither Satisfied nor Dissatisfied**	**Dissatisfied**	**Very Dissatisfied**
Overall administration of the scheme	14.2%	41.6%	24.7%	10.2%	9.3%
I had the right information	15.2%	48.8%	21.8%	8.1%	6.1%
Marketing/Promotion of the scheme	8.8%	34.0%	40.0%	10.4%	6.8%
Support from my case officer to apply for the internship	11.5%	24.0%	37.8%	13.0%	13.7%
Application and approval process	14.3%	45.8%	26.7%	6.8%	6.5%
Monitoring and complaints procedure	9.2%	23.9%	45.4%	9.4%	12.1%
Standard agreement	11.2%	37.7%	39.4%	5.1%	6.7%
The duration of the scheme	10.2%	38.6%	26.9%	14.2%	10.1%
Overall supports provided by host organisation to interns	24.8%	34.1%	18.3%	10.6%	12.2%
Source: Indecon and DSP Confidential Survey of JobBridge Interns					

There was a high level of satisfaction amongst responding host organisations towards the general administration of the JobBridge scheme. 39.7% of respondent were very satisfied with the level of supports provided by the organisation. 88.9% said that they were either very satisfied (38.7%) or satisfied (50.2%) with the level of supports.

Table 5.21: JobBridge Host Organisations - Views on General Administration of the JobBridge Scheme (Percentage of Respondents)					
Please indicate below your views on the general administration of the JobBridge scheme from initial engagement with the scheme to the completion of any given internship:	**Very Satisfied**	**Satisfied**	**Neither Satisfied nor Dissatisfied**	**Dissatisfied**	**Very Dissatisfied**
Quality of scheme information	38.7%	50.2%	8.4%	2.3%	0.3%
Marketing/Promotion of scheme	27.4%	47.2%	20.9%	3.8%	0.7%
Ease of access to scheme	36.1%	48.3%	11.1%	3.5%	0.9%
Application and approval processes	37.1%	47.9%	10.0%	3.9%	1.1%
Monitoring and complaints procedures	29.0%	40.7%	26.6%	2.6%	1.1%
Standard agreement	33.3%	50.9%	14.2%	1.2%	0.4%
Level of supports provided by the Department of Social Protection	30.5%	42.2%	21.9%	3.8%	1.5%
Level of supports provided by your organisation	39.7%	50.2%	9.4%	0.4%	0.3%
Source: Indecon and DSP Confidential Survey of JobBridge Host Organisations					

Table 5.22 shows the views of host organisations on the significance of the benefits of JobBridge participation. 45.6% of respondents believed JobBridge led to a very significant benefit as a mechanism by which to test potential future employees, with a further 38.2% saying this was a significant benefit. 78.2% said that the contribution of interns to organisational productivity and sustainability was either a very significant or significant benefit. 23.7% stated that raising the profile of the host organisation in the media and amongst key stakeholders was not of any benefit for their organisation. The extent of these benefits to host organisations suggests the need for a greater financial contribution to any new scheme from employers.

Table 5.22: JobBridge Host Organisations - Views on Benefits of Participation in JobBridge (Percentage of Respondents)					
Please indicate how you would rate the following potential benefits for your organisation arising from participation in the JobBridge scheme:	**Very Significant Benefit**	**Significant Benefit**	**Neither Significant nor Insignificant Benefit**	**Insignificant Benefit**	**Not of Any Benefit**
Contribution of interns to providing organisation with some level of low cost employment	33.3%	38.9%	19.4%	4.9%	3.5%
Contribution of interns to organisational productivity and sustainability	31.6%	46.6%	16.5%	3.5%	1.8%
Mechanism by which to test potential future employees	45.6%	38.2%	12.0%	2.3%	2.0%
Provision of temporary employees	17.3%	33.4%	30.2%	10.3%	8.8%
Method to overcome restrictions on increasing employment in organisation	21.2%	27.8%	27.5%	8.0%	15.5%
Contribution to enhancing organisation's competitiveness	19.1%	32.5%	31.1%	6.7%	10.6%
Contribution to employment creation in organisation	26.7%	38.8%	22.7%	4.8%	7.1%
Positively raised the profile of your organisation in media and amongst key stakeholders	11.1%	16.7%	38.7%	9.8%	23.7%
Source: Indecon and DSP Confidential Survey of JobBridge Host Organisations					

Table 5.23 shows the views of interns concerning overall satisfaction levels with JobBridge. The majority of interns (53.9%) were either very satisfied or satisfied with JobBridge. However, nearly a third of interns were either dissatisfied (13.9%) or very dissatisfied (17.6%) with JobBridge.

Table 5.23: JobBridge Interns - Views on Overall Satisfaction with JobBridge

Overall, how satisfied or dissatisfied were you with the JobBridge scheme?	% of Respondents
Very Satisfied	21.2%
Satisfied	32.7%
Neither Satisfied nor Dissatisfied	14.6%
Dissatisfied	13.9%
Very Dissatisfied	17.6%

Source: Indecon and DSP Confidential Survey of JobBridge Interns

Not surprisingly there were higher levels of dissatisfaction of interns who were not currently in employment as evident from the table below. 22.1% of those not in employment are very dissatisfied with JobBridge, compared to 14.3% who are currently in employment.

Table 5.24: JobBridge Interns - Views on Overall Satisfaction with JobBridge by Current Status (Percentage of Respondents)

	All Respondents	In Employment	Not In Employment	Unemployed (in receipt of a Jobseekers payment)
Very Satisfied	21.2%	26.4%	13.6%	10.6%
Satisfied	32.7%	35.0%	29.6%	30.6%
Neither Satisfied nor Dissatisfied	14.6%	12.9%	17.1%	18.5%
Dissatisfied	13.9%	11.3%	17.6%	18.3%
Very Dissatisfied	17.6%	14.3%	22.1%	21.9%

Source: Indecon and DSP Confidential Survey of JobBridge Interns

Overall satisfaction levels with the JobBridge scheme among hosts are presented in Table 5.25, with 57% of hosts saying that they were very satisfied with the scheme. When added to those who were satisfied with the scheme, 92.2% were either very satisfied or satisfied with JobBridge. In comparison 3.2% of respondents stated that they were dissatisfied or very dissatisfied.

Table 5.25: JobBridge Host Organisations - Views on Overall Satisfaction Levels

Please indicate your level of overall satisfaction with the JobBridge scheme:	% of Respondents
Very Satisfied	57.0%
Satisfied	35.2%
Neither Satisfied nor Dissatisfied	4.6%
Dissatisfied	2.4%
Very Dissatisfied	0.8%

Source: Indecon and DSP Confidential Survey of JobBridge Host Organisations

5.5 Types of Training Provided

The types of training provided to the intern by the host organisation is analysed in Table 5.26. 72.1% of interns indicated that on-the-job training was provided, with a further 77.4% saying that they were exposed to working life. Over half of respondents, however, said were not provided with training course (52.8%), or opportunities to gain qualifications (60.4%).

Table 5.26: JobBridge Interns - Training and Development Opportunities Provided (Percentage of Respondents)

Please indicate whether your host organisation provided you with any of the types of training/development opportunities listed below:	Yes	No	Not Needed
On-the-job training	72.1%	18.9%	8.9%
Training courses	31.0%	52.8%	16.3%
Opportunities to gain qualifications	23.7%	60.4%	16.0%
Mentoring by other employees	66.6%	26.7%	6.7%
Specific skill development	57.0%	35.9%	7.0%
Exposure to working life/environment	77.4%	14.8%	7.9%
Career advice	39.3%	49.8%	10.9%

Source: Indecon and DSP Confidential Survey of JobBridge Interns

Table 5.27 presents the above information from the perceptions of host organisations. 98.8% of hosts believed they provided on-the-job training, with over 90% of respondents also saying that they provided mentoring by other employees and specific skill development. Over three-quarters (77.6%) said that they provided career advice to interns. These issues are to some extent judgemental and what an intern may perceive as on-the-job training may differ from the perceptions of host organisations.

Table 5.27: JobBridge Host Organisations - Training and Development Opportunities for Interns (Percentage of Respondents)

Please indicate whether JobBridge interns in your organisation were provided with any of the type of training/development opportunities listed below:	Yes	No	Don't Know
On-the-job training	98.8%	0.9%	0.3%
Training courses	53.6%	44.8%	1.6%
Opportunities to gain qualifications	43.5%	53.3%	3.3%
Mentoring by other employees	96.4%	3.1%	0.5%
Specific skill development	93.5%	5.1%	1.4%
Career advice	77.6%	17.9%	4.5%
Average	**77.2%**	**20.8%**	**1.9%**

Source: Indecon and DSP Confidential Survey of JobBridge Host Organisations

5.6 Completion/Incompletion of Internship

Table 5.28 provides a breakdown of whether or not interns completed their internship. 71.7% of respondents completed their internship, whilst 28.3% did not complete the full duration of the internship.

Table 5.28: JobBridge Interns - Completion of Internship	
Did you complete the full duration of your JobBridge placement?	**% of Respondents**
Yes	71.7%
No	28.3%
Source: Indecon and DSP Confidential Survey of JobBridge Interns	

When asked for the reason behind not completing their internship, 53.1% of interns indicated that they had either secured a paid position with their host organisation or with another company. Between one-fifth and one-quarter of respondents each gave dissatisfaction with various aspects of the internship as their reason for not completing: dissatisfaction with the quality of work experience (21.7%), dissatisfaction with training and development opportunities (20.4%) and dissatisfaction with host organisation (23.3%).

Table 5.29: JobBridge Interns - Reasons for not Completing Internship	
If you did not complete the full duration of your JobBridge internship was this due to:	**% of Respondents**
Securing paid employment with your host organisation	21.1%
Securing a job elsewhere	32.0%
Mismatch between my skills and JobBridge position	7.1%
Dissatisfaction with quality of work experience	21.7%
Dissatisfaction with training and development opportunities	20.4%
Dissatisfaction with host organisation	23.3%
Not feeling valued by, or feeling part of, the host organisation	24.1%
Other reasons	25.4%
Source: Indecon and DSP Confidential Survey of JobBridge Interns Note: Percentages do not add up to 100% due to the option of selecting multiple responses	

5.7 Actions in the Absence of JobBridge

The overall impact of the Programme and the level of deadweight was examined in our detailed econometric counterfactual analysis. However, it is also useful to consider interns and host views on what would have been the case in the absence of JobBridge. This is also useful in examining the related issue of potential job displacement. Table 5.30 shows the views of interns on their views of what host organisations would have done in the absence of JobBridge. Almost one-third stated that they thought organisations would have appointed paid employees if JobBridge did not exist. A further 22.5% felt that hosts would have provided other unpaid internships, with a minority (21.8%) of the view that no recruitment would have been undertaken in the absence of JobBridge.

Table 5.30: JobBridge Interns - Host Organisations' Actions in Absence of JobBridge	
Do you think that in the absence of JobBridge scheme the host organisation would have taken any of the following actions?	**% of Respondents**
Appointed paid employees	31.1%
Provided other unpaid internships	22.5%
Not undertaken any recruitment	21.8%
Don't Know	24.6%
Source: Indecon and DSP Confidential Survey of JobBridge Interns	

It is also useful to consider the views of host organisations on what they would have done in the absence of JobBridge. The table below shows that 40.6% of hosts indicated that not undertaking any recruitment was the most likely decision. However, it is also evident that a small minority of hosts indicated would have hired paid employees. While this suggests a lower level of displacement than perceived by interns, in Indecon's cost-benefit analysis we use the higher level assumed by interns for displacement while accepting this may overestimate the level of job displacement.

Table 5.31: JobBridge Host Organisations - Organisations' Actions in the Absence of JobBridge (Percentage of Respondents)					
In the absence of JobBridge, please rank in order of likelihood the decisions your organisation would have made. (Please rank the options from 1 to 5, with 1 being the most likely decision and 5 the least likely)	**1 (Most Likely)**	**2**	**3**	**4**	**5 (Least Likely)**
Employed paid interns without the Programme	9.5%	12.2%	21.2%	26.6%	30.5%
Employed unpaid interns	13.3%	18.3%	23.9%	21.0%	23.5%
Hired paid employee(s)	10.9%	14.9%	23.2%	23.0%	28.0%
Not undertaken any recruitment	40.6%	16.2%	12.7%	12.0%	18.5%
Source: Indecon and DSP Confidential Survey of JobBridge Host Organisations					

The majority of host organisations stated that it was not at all likely that they would have offered a paid job to any of the interns if JobBridge did not exist. Less than 10% of hosts answered that it would be highly likely that they would have offered employment to interns without JobBridge. For this crucial issue of deadweight and the impact of the Programme Indecon has relied on our counterfactual economic evidence in completing our cost-benefit appraisal. This suggests high levels of deadweight in the Programme.

Table 5.32: JobBridge Host Organisations - Likelihood of Offering Paid Jobs in Absence of JobBridge	
If you have offered a paid job to any interns, how likely is It you would have made such offers in the absence of JobBridge?	**% of Respondents**
Highly likely	7.6%
Fairly likely	23.2%
Not at all likely	52.2%
Don't know	16.9%
Source: Indecon and DSP Confidential Survey of JobBridge Host Organisations	

5.8 Department of Social Protection Audit Report

In considering the likelihood of deadweight/job displacement, in addition to our econometric evidence and the views of interns and hosts we also examined the findings of an internal Department of Social Protection audit report on the scheme. This highlights the fact that host organisations were asked to self-declare compliance with a number of eligibility criteria including the existence of public/employers' liability insurance and the fact that the intern was not displacing a job vacancy or that the organisation had issued redundancy payments. The audit report concluded that it was not possible to verify or not that the internship was displacing a potential job vacancy.

The response of management in the Department in terms of observations to the internal audit report considered the issue of monitoring of compliance with the terms of conditions of the JobBridge Scheme including the issue of job displacement/redundancy and other aspects. The Department indicated that the host organisations are asked to self-declare compliance with the requirements of the scheme and that a deliberate policy decision was taken when the scheme was implemented to rely on self-declaration at the advertising stage but to introduce random monitoring/inspection visits focussed on the JobBridge specific requirements rather than general employment law requirements which are the responsibility of the Department of Jobs, Enterprise and innovation (via NERA). Indecon understands why it was decided that the approach of self-declaration supported by random visits had merits given the nature and scale of the JobBridge Scheme. However, in designing any new programme Indecon has examined recent changes being made by the Department to add extra checks to its monitoring and inspection process and we believe these enhanced measures should be included in any new initiative.

On the important issue of job displacement our independent analysis suggests that some displacement is likely to exist which is not surprising, given the nature of the scheme. However, our proposed structural changes to require host organisations to fund 100% of intern payments and the removal of the cap will assist in reducing the level of job displacement.

We also believe that organisations who misstate their organisations information on key eligibility criteria should be required to repay all the Exchequer costs incurred with interest. This is likely to enhance compliance with eligibility criteria particularly when complemented by enhanced monitoring of any new scheme.

5.9 Summary

- A key issue examined in our research was the progression outcomes to employment. In total, 64.2% of interns were currently employed either with their host organisation or with another employer. 9.6% were pursuing further education or training. 6% were on another employment scheme such as JobsPlus, JobPath, CE or Tús. A further 3.4% have emigrated and no longer live in Ireland. 14.3% of respondents were unemployed and in receipt of a Jobseekers payment, with a further 3.4% were on another social welfare payment scheme. This evidence highlights the high levels of progression to employment for JobBridge interns.
- An important issue in the evaluation is the impact, if any, of JobBridge on skills work experience and training. 70.2% of interns either agreed or strongly agreed that the internship gave them new job skills, the highest level of agreement with any of the statements. However, this has not been the experience of all interns and over 18% of interns did not feel the Programme has provided them with new job skills. A very high percentage of interns also felt the Programme had provided an opportunity to gain quality work experience. Conversely, the largest degree of disagreement was with the statement that the internship gave the intern the opportunity to secure formal training as part of placement with 33% either disagreeing (17.7%) or strongly disagreeing (15.3%). The evidence shows that for many interns the Programme provided them with skills or quality work experience but that some interns did not receive such benefits from participation.
- Another way of investigating the experience of interns is to review their satisfaction with aspect of the Programme. The highest level of satisfaction was with the quality of work experience provided by the host organisation with 30.4% being very satisfied and a further 36.9% being satisfied. The value of the JobBridge Top-Up Payment was the aspect with the highest dissatisfaction rates. 28% of respondents were very dissatisfied, with a further 23.4% dissatisfied.
- There was a high level of satisfaction with various aspects of the JobBridge scheme amongst host organisations. 51.5% of respondents stated that they were very satisfied with the work performance and engagement of the intern during the internship, with a further 38% stating that they were satisfied with this aspect. This suggests that organisations secured benefits from their participation in the initiative. In our analysis, Indecon considers the implications of this for the financial contributions of employers to any new initiative.
- Of note is that 100% of the payments to interns are funded by the Exchequer despite the benefits which host organisations obtained, although we accept that host organisations will have incurred costs of participating in JobBridge.

6 Ex-Post Cost-Benefit Analysis of the JobBridge Programme

6.1 Introduction

As part of this assessment of the JobBridge Programme, Indecon has undertaken an ex-post cost-benefit analysis of the Programme. This is important as even if a Programme is effective it may not justify the economic resource costs involved. Given that the Programme is funded by 100% Exchequer costs and the need to ensure the best allocation of very scarce resources this analysis is a critical input to future policy. The aim of this analysis is to assess the net-benefit of the program to both the Exchequer and the wider economy. With this goal in mind, Indecon has undertaken the following tasks:

- Exchequer impact analysis – this analysis includes only the costs and benefits to the Exchequer of the operation of the JobBridge program;
- Wider cost-benefit appraisal which seeks to estimate the net economic benefit to society of the JobBridge Programme.

The methodologies employed and the assumptions underlying each appraisal are discussed in more detail in this chapter. Indecon would note that in undertaking these appraisals we have been cognisant of and complied with the latest guidance for carrying out Exchequer impact and cost-benefit analyses from both the Irish government and the European Commission. The public spending code published by the Department of Public Expenditure and Reform contains guidance for the completion of Exchequer impact analyses.[6] The Public Spending Code also contains guidance on best practice when undertaking a cost-benefit appraisal.[7] In addition to this national guidance, Indecon has also incorporated the latest guidance from European Commission in undertaking the ex-post cost-benefit appraisal of the JobBridge Programme.[8]

6.2 Exchequer Impact Analysis

The first element of the cost-benefit appraisal of the JobBridge Programme which we report in this chapter is the Exchequer impact. This analysis estimates the net impact on the Exchequer including the costs of administrating and running the JobBridge Programme. We also include estimates of the costs of social welfare payments to JobBridge interns when they are on the Programme who might otherwise have left the Live Register.

Indecon was provided with the costs of the administration of the JobBridge Programme by the Department of Social Protection. Table 6.1 outlines these costs. This table represents the total administrative costs of the JobBridge Programme from its inception in 2011 to December 2015. The total administrative costs of the Programme come to approximately €1.5 million.

[6] Public Spending Code: Standard Analytical Procedures for Carrying out a Financial Analysis http://publicspendingcode.per.gov.ie/carrying-out-a-financial-analysis/

[7] Public Spending Code: Guide to Economic Appraisal: Carrying out a Cost-Benefit Analysis http://publicspendingcode.per.gov.ie/wp-content/uploads/2012/08/D03-Guide-to-economic-appraisal-CBA-16-July.pdf

[8] European Commission: Guide to Cost-Benefit Analysis of Investment Projects http://publicspendingcode.per.gov.ie/wp-content/uploads/2012/08/D03-Guide-to-economic-appraisal-CBA-16-July.pdf

Table 6.1: JobBridge Administrative Costs - 2011-2015	
Cost Item	**Euro**
Payroll	€1,272,161
Travel and Subsistence	€22,283
Website Maintenance	€81,611
Printing	€27,961
Stationary	€2,916
Consultancy	€47,645
Conferences	€3,177
Training	€1,550
Total Administrative Costs	**€1,459,305**
Source: Department of Social Protection	

Beyond administrative costs, one of the costs of the JobBridge Programme is the weekly supplement paid to participants. For the purposes of this analysis, the JLD was consulted in order to ascertain the number of JobBridge weeks that have been completed since the Programme's inception in 2011 and December 2015. Indecon has based its estimate of the total cost to the Exchequer of these weeks of JobBridge participation on the assumption that each intern received an additional top-up of their other social welfare payments.

Table 6.2 outlines Indecon's estimate of the total cost of providing top-up payments to interns. We estimate the total cost to the Exchequer at €53.7 million between 2011 and December 2015.

Table 6.2: JobBridge Top-Up Payment Costs - 2011-2015	
	Euro
Cost to the Exchequer of Top-Up Payments	**€53,714,284**
Source: Indecon analysis of JLD	

We have also taken account of the fact that in the absence of JobBridge some participants may have left the Live Register and so the payment of their basic social welfare would for this group represent an Exchequer cost. Some of this group may have left the Live Register and returned to employment for only a short period and then come back to the Live Register. We therefore examined the evidence on what percentage of our control group left the Live Register during a period of an average JobBridge placement.

Indecon's analysis of the matched sample in our analysis suggests a weighted average percentage return to employment amongst the matched control group of 19.6%. For the purposes of our analysis we impose the requirement that to be classed as employed over the period, the matched individual from the control group must have been employed for at least three of these months. We would note that we have included total social welfare costs for this group for the average period of a JobBridge placement. As some of these individuals are likely to have returned to the Live Register in the absence of JobBridge this may overestimate the Exchequer costs. However, given our three-month employment criteria and the need to ensure Exchequer costs are not underestimated, we believe this is a reasonable approach.

This 19.6% of individuals who may have gained employment over the period of the JobBridge internship represents a potential 'lock in' cost of JobBridge to the exchequer. By participating on JobBridge these individuals continued to be entitled to unemployment benefits that they might otherwise have foregone should they have instead gained employment over the placement period.

Table 6.3 outlines Indecon's estimates of the costs of these 'lock in' effect to the exchequer over the course of the JobBridge Programme. These estimates are based on the total number of internships, the average unemployment payment received by JobBridge participants of €161 per week.

Table 6.3: JobBridge 'Lock In' Effect Unemployment Payment Costs - 2011-2015

	Euro
Total cost to the Exchequer of 'Locked in' Unemployment Payments	€17,183,508
Source: Indecon analysis of JLD	

In addition to examining Exchequer costs, it is necessary to consider the Exchequer inflows. These comprise of reduced social welfare payments due to additional employment attributable to JobBridge and additional tax receipts from this additional employment.

In order to ensure that benefits are not overestimated, it is important that any potential benefits are considered net of both the deadweight and displacement associated with the Programme.

In estimating the additional employment attributable to JobBridge over the period in question, Indecon has made use of both the counterfactual impact findings discussed previously as well as the findings from the survey of Programme participants to estimate a figure for additional jobs which is net of both deadweight and displacement.

The counterfactual econometric analysis outlined in previous chapters estimated that the Programme provides an additionality in terms of the probability of becoming employed without participating in JobBridge of 32%. The implied deadweight associated with the Programme when considering the chances of gaining employment is thus approximately 75.6% and any benefits from the Programme should be reduced by this level. In other words, only 24.4% of the overall benefits should be treated as net benefit.

Indecon has also estimated the related issue of displacement associated with JobBridge using evidence obtained from the survey of Programme participants. The answers from the Indecon survey of interns are used to construct the estimate of displacement associated with the Programme.

Just over 27% of respondents expressed the opinion that their internship fully replaced existing paid employees while 31% suggested that in the absence of the Programme the host organisation would have appointed paid employees. The average of these two figures suggests a displacement rate of 29.1%.

Indecon would note that this estimate is based solely on the opinions of interns and thus may overestimate the level of displacement. The survey of host organisations suggested that less than 10% of host organisations used interns in place of full-time employees. While we use an estimated displacement rate of 29.1% in the following analysis, we recognise that this may be at the higher end of the range of estimates of displacement associated with the JobBridge Programme. This also takes account of the fact that there are different aspects of displacement including the potential impact on economic activity or employment in competitor businesses who had not secured

JobBridge placement. However, as the scheme was open to all eligible organisations and as this would not apply to non-commercial organisations, this is not likely to be significant.

There may also be some element of over counting of job displacement with the related issue of deadweight as viewed from the probability of securing employment. However, we believe it is prudent to use cautious assumptions so as not to overestimate the net benefits.

Table 6.4 outlines the number of jobs attributable to JobBridge using evidence from both the JLD and the survey of interns and the estimates of deadweight and displacement discussed previously. Indecon estimates that between 2011 and 2015, 3,385 jobs are attributable to the Programme, net of deadweight and displacement.

Table 6.4: Employment Attributable to the JobBridge Programme

Individuals who obtained employment at any time following the completion of JobBridge	**19,544**
Net of Deadweight	4,774
Net of Displacement	3,385
Total Additional Employment Attributable to JobBridge	**3,385**
Source: Indecon analysis of JLD and Survey Evidence	

The following table outlines the other key parameters used in the calculation of the benefits to the Exchequer. The data on annual incomes is derived from Revenue Commissioners data on individuals who were previously JobBridge interns.

Table 6.5: Key Parameters for Calculation of Exchequer Benefits

	Euro
Average annual income for post internship employment	€23,369
Average annual tax contribution for post internship employment	€2,926
Average annual unemployment payment	€8,365
Source: Indecon analysis	

The estimate of the annual average income for post internship employment is the average annual income for those who had completed an internship, gained employment and maintained this employment for an entire calendar year. This includes individuals who were full-time as well as those who were part-time employed. (If one utilises Revenue data on average income for all JobBridge interns who subsequently were in employment for even part of a year the average income is very slightly different at €22,900. We have used the estimate in Table 6.5 as the employment of these interns may continue post the period which we have evaluated which would give higher benefits.) The average annual tax contribution was estimated according to current personal income taxation levels. The estimate of the average annual unemployment payment is based on analysis of the JLD. Indecon's analysis suggests that the average weekly social welfare payment for JobBridge participants prior to undertaking JobBridge is €166. The estimate in the above table is an annualisation of this figure.

In completing the Exchequer impact analysis, it is also necessary to take account of the potential benefits to the Exchequer in terms of VAT and excise tax revenue from additional employment attributable to JobBridge. The Public Spending Code notes that the impact of taxation revenue from VAT and excise can be included in financial analyses as long as the impacts are only included net of deadweight and displacement. All VAT and excise revenues are thus included net of deadweight and displacement in Indecon's estimates of the Exchequer impact of these revenues attributable to JobBridge. Indecon has estimated the impact of JobBridge on VAT and excise tax receipts using data from the Household Budget Survey and the JLD.

Indecon estimates of the average weekly VAT and excise contributions of individuals at this level of income are outlined in Table 6.6. This table also outlines Indecon estimates of the net contribution relative to the counterfactual of the individual remaining on the live register. Indecon estimates an average net additional contribution of €1,931 to the Exchequer for each additional job attributable to the JobBridge Programme.

Table 6.6: Estimates of Net VAT and Excise Contributions from Post-JobBridge Employment

	Weekly	Annually
Post-JobBridge Employment		
VAT Contribution	€86.18	€4,481
Excise Contribution	€36.68	€1,907
Total	**€122.86**	**€6,389**
Remaining on Live Register		
VAT Contribution	€58.51	€3,043
Excise Contribution	€27.21	€1,415
Total	**€85.72**	**€4,457**
Net Contribution of JobBridge to VAT and Excise	**€37.14**	**€1,931**
Source: Indecon analysis		

Table 6.7 outlines Indecon's estimate of the total contribution of VAT and excise revenues for the Exchequer, net of deadweight and displacement. We estimate that JobBridge would result in additional VAT/excise revenue for the Exchequer, for each year of employment for JobBridge interns.

Table 6.7: Estimate of Total Net VAT and Excise Contributions JobBridge

Employment attributable to JobBridge (net of deadweight and displacement)	3,385
Average net contribution of post JobBridge employment to VAT and Excise	€1,931
Total Contribution of JobBridge Programme to VAT and Excise revenue	€6,536,452
Source: Indecon analysis	

An assumption in both the exchequer impact analysis and the CBA of JobBridge undertaken by Indecon is the length of the employment episode attributed to JobBridge participation.

Indecon has examined the available information on average employment duration in Ireland in order to inform the exchequer impact analysis and CBA. Data from the Quarterly National Household Survey (QNHS) published by the CSO provide some insight into employment duration in Ireland. Table 6.8 outlines the average duration of employment in Ireland for the years from 2012 to 2015.

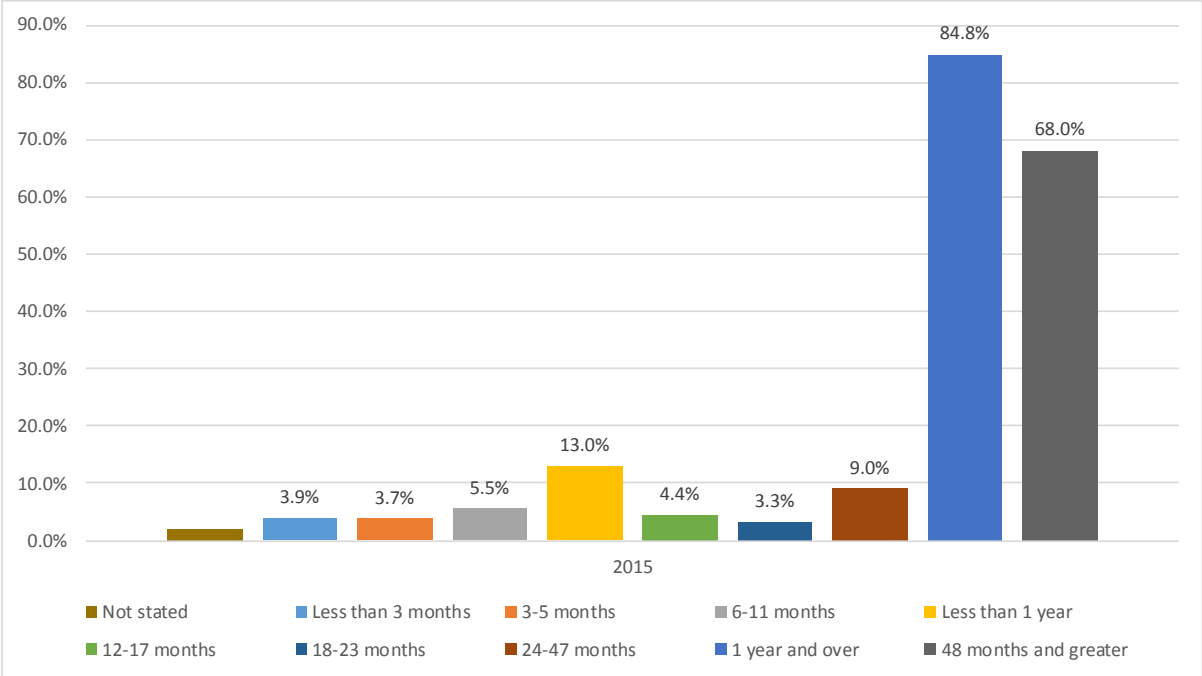
Table 6.8: Average Employment Duration Statistics

Employment Duration	2012	2013	2014	2015
Less than 3 months	3.8%	3.9%	4.0%	3.9%
3-5 months	2.9%	3.4%	3.4%	3.7%
6-11 months	4.3%	5.0%	5.3%	5.5%
Less than 1 year	10.6%	11.9%	12.6%	13.0%
12-17 months	3.7%	3.9%	4.0%	4.4%
18-23 months	3.6%	2.9%	3.2%	3.3%
24-47 months	13.5%	10.5%	9.3%	9.0%
1 year and over	87.9%	86.3%	85.5%	84.8%
48 months and greater	67.1%	69.1%	69.1%	68.0%

Source: Indecon analysis QNHS data

It can be observed that the majority of employment episodes in Ireland last for longer than a year with just over two thirds lasting for two years or more. The proportion of jobs lasting for less than one year has risen from ten to thirteen percent between 2012 and 2015. The below figure illustrates graphically the breakdown of employment durations for 2015.

Figure 6.1: Employment Durations in 2015



Source: Indecon analysis of QNHS data

Indecon recognises that this survey data is representative for the labour force as a whole and that the nature and characteristics of JobBridge participants are likely to differ from the average of the labour force in terms of age, employment history, educational attainment etc. However, given the overwhelming majority of employment episodes in the Irish economy appear to last for at least one year, a range of durations from one to two-and-a-half years would be appropriate for use in the exchequer impact and CBA undertaken for this report.

Table 6.9 displays the net impact of the Exchequer of the JobBridge Programme, including the impact of additional VAT and excise revenue, under differing assumptions for the length of the jobs attributable to JobBridge participation.

Table 6.9: Ex-Post Wider Exchequer Impact Analysis – Alternative Assumptions on Length of Employment

	Costs	Benefits	Net Exchequer Benefit
Assuming Additional Employment lasts:			
1 year	€72,357,097	€44,752,083	-€27,605,014
2 years	€72,357,097	€89,504,166	€17,147,069
2.5 years	€72,357,097	€111,880,207	€39,523,110

Source: Indecon analysis

The above table, however, in our view may overestimate the net benefits as if additional employment lasts for 2 years, the level of deadweight is likely to have increased. Table 6.10 illustrates the net benefit to the Exchequer when accounting for the possibility of higher levels of deadweight over a longer period. This reduces the net benefits for the Exchequer.

Table 6.10: Ex-Post Exchequer Impact Analysis – Accounting for Potentially Higher Deadweight

	Costs	Benefits	Net Exchequer Benefit
Assuming Additional Employment lasts:			
1 year	€72,357,097	€44,752,083	-€27,605,014
2 years	€72,357,097	€73,129,063	€771,966
2.5 years	€72,357,097	€91,411,329	€19,054,232
Source: Indecon analysis			

Indecon has estimated in our exchequer impact model the length of time that each additional job attributable to JobBridge would need to last in order for the JobBridge program to breakeven even in terms of its benefits equalling its costs.

The below table illustrates the breakeven point for the exchequer impact analysis. This analysis indicates that the average employment length will need to be just under-24 months for the program to breakeven from the exchequer point of view.

Table 6.11: Ex-Post Exchequer Impact Analysis – Breakeven Point

	Costs (€ Million)	Benefits (€ Million)	Net Exchequer Benefit
Assuming Additional Employment lasts (Months):			
23.8	€72.4	€72.4	€0
Source: Indecon analysis			

6.3 Ex-Post Cost-Benefit Analysis of the JobBridge Programme

The previous sections of this chapter have outlined the net-benefit of the JobBridge Programme to the Exchequer finances. This section examines the net-benefit to the Programme on the wider economy. Indecon has undertaken an ex-post cost-benefit analysis (CBA) of the JobBridge Programme in line with the guidance and recommendations in the Public Spending Code and the European Commission guidance documents to estimate the net benefit to the wider economy of JobBridge since its inception in 2011 up until December 2015. In this section we outline the methodology and inputs used in this CBA including a detailed discussion of the benefits and costs included before outlining the results.

As was the case with the Exchequer impact analyses discussed previously, the CBA is undertaken net of deadweight and displacement in order to ensure that as precise an estimate of the net benefit of the Programme is obtained as possible. As before, the estimate of the deadweight associated with the Programme is taken from Indecon's econometric counterfactual impact evaluation. Also, as outlined previously, the estimate of displacement is obtained using evidence from Indecon's survey of JobBridge participants.

The Public Spending Code requires that all costs incurred by the state and thus funded by taxation should be adjusted by the shadow cost of public funds. This adjustment is designed to reflect the deadweight loss associated with taxation due to the distortionary effects of taxation on economic activity. The aim of the adjustment for the shadow cost of public funds is thus to make private cash flows commensurate with public cash flow in the CBA.

The latest guidance from the Department of Public Expenditure and Reform suggests that the shadow cost of public funds should be set at 130%. Indecon's CBA for the impact of JobBridge reflects this requirement and adjusts all government expenditure accordingly.

The Public Spending Code states that labour inputs to projects should be adjusted to reflect the shadow price of labour. The shadow price of labour aims to account for the state of the labour market at the time of the project. It is the opportunity cost to the project of the labour used in delivering the project benefits.

The latest guidance suggests the use of a shadow price of labour of between 80% and 100%. In the case of this evaluation of the JobBridge Programme, Indecon has made an adjustment for the shadow price of labour in our estimation of the contribution of interns to GVA during the course of their internships. We assume a shadow price of labour of 80% in our analysis.

The costs to the Department of Social Protection of administering the Programme are included in the analysis and adjusted for the shadow cost of public funds as discussed above. As the additional employment attributable to the JobBridge Programme are defined as project benefits and not project inputs, it is not appropriate for any further adjustment to be made for the shadow price of labour in this CBA.

While the guidance documents recommend that transfer payments, such as the weekly top-up payment, are excluded from the analysis, we have chosen to include them in an effort to fully reflect the costs of the Programme. Including the weekly top-up payment as both a cost and a benefit implies that only the shadow price of public funds is reflected in the overall costs of the Programme in our analysis. Similarly, we include the 'lock in' costs to the exchequer in terms of unemployment payments that would have been foregone without JobBridge but as these payments also represent a transfer payment we include the 30% of these payments that constitute the distortionary impact of these payments on society as per the shadow cost of public funds.

Beyond costs incurred by the public sector, we also include in costs to the wider economy the wage costs to employers of the additional employment attributable to JobBridge.

Table 6.12 outlines the total costs associated with the operation of JobBridge Programme between 2011 and December 2015. This table also adjusts these costs by the shadow cost of public funds to give a figure for total economic costs to be included in the CBA at €127.6 million.

Table 6.12: CBA of JobBridge Economics – Costs Adjusted for Deadweight and Shadow Prices	
	Euro
Total Economic Costs	**€127,661,646**
Source: Indecon	

The above costs need to be compared to the estimated benefits. The wider CBA includes benefits to the participants and employers as well as the Exchequer. All of these benefits are included net of deadweight and displacement.

While the weekly top-up payments paid to JobBridge interns represent a cost to the Exchequer, they are a benefit to the participants as they represent additional income that these individuals would not have in the alternative scenario in which JobBridge is not available.

The wages earned by individuals who gained employment due to participation in the JobBridge Programme that otherwise would not have been employed are included as a benefit to the economy from JobBridge. While the previous Exchequer analysis included only the tax contribution from this additional employment, the wider CBA includes the entirety of the additional wages from this additional employment as a benefit. It is important that these benefits are also included net of the counterfactual income levels should these individuals not have gained employment.

These additional benefits are also calculated net of deadweight and displacement.

The total benefit from additional employment to the individuals is calculated based on the average annual income for those who had completed an internship, gained employment and maintained this employment for an entire calendar year. Table 6.13 presents Indecon's estimate of the net income benefits attributable to JobBridge in terms of income to participants, assuming that the job the individuals gain after their internship lasts for one year. We estimate these benefits at just over €50.7 million.

Table 6.13: Income Benefits to from Additional Employment Attributable to JobBridge	
Average annual income for post internship employment	€23,369
Average Annual Income if unemployed	€8,365
Net Benefit of Employment due to JobBridge	€15,004
Additional employment attributable to JobBridge	3,385
Total benefit from 1 year of additional employment	€50,780,928
Source: Indecon analysis	

An additional benefit from the JobBridge Programme is the additional output of participants during their internships. Indecon would highlight the difficulty of accurately estimating the contribution of interns in this regard given the wide variety of sectors in which internships took place, the varying types of work that interns were undertaking and the differing levels of productivity across different roles. Nevertheless, given the number of internships undertaken since 2011, the contribution of these interns to economic output is likely to be significant relative to the costs of the operation of the JobBridge Programme and merits inclusion in a CBA.

In order to estimate the contribution of the interns to GVA, Indecon examined the breakdown of internships by sector in the JLD. An illustration of this sectoral breakdown can be seen in the following table. It can be observed that the majority of internships are classified as being in the 'other services' sector. Other significant sectors include retail/wholesale/hotels/catering and information technology.

Table 6.14: Internships by Sector	
	No. of Interns
Chemical Manufacturing	174
Cleaning	142
Clothing & Footwear manufacturing	57
Construction	1,057
Engineering	987
Financial Services	1,281
Food/Drink/Tobacco Manufacturing	789
Information Technology	2,245
Other Services	27,261
Printing & Paper	448
Retail/Wholesale/Hotel/Catering	3,618
Security	168
Textiles Manufacturing	79
Transport/Communications	757
Source: Indecon analysis of JLD	

In order to estimate the contribution of these interns to GVA output of these sectors, Indecon examined data from the CSO on total GVA per sector and the number of employees in each sector to estimate a figure for average GVA per employee in each sector. It should be noted that it was necessary to make a number of judgements in matching the available sectors from the CSO to those available in the JLD.

Given the nature of the JobBridge Programme, interns are unlikely to contribute as much to GVA as other more experienced and productive employees in these sectors. In recognition of this, it was necessary to estimate an alternative GVA per intern estimate based on the GVA per employee figures. For the purposes of this CBA, Indecon has chosen a very conservative approach in assuming that interns contribute 10% of the GVA of the average employee in each sector. The estimate of the average GVA contribution per intern has also been adjusted to reflect the average internship duration of just over six months. The estimate of the total contribution of interns to GVA between 2011 and December 2015 can be found in Table 6.15.

Based on the assumptions discussed above, Indecon estimates that interns have contributed €173 million to GVA in the Irish economy between 2011 and 2015.

Table 6.15: Estimate of Total Contribution to GVA of Interns

	No. of Interns	Estimate of GVA per Employee (€)	Estimate of GVA per Internship (€)	Total GVA Contribution by Interns (€)
Chemical Manufacturing	174	171,494	8,575	1,491,995
Cleaning	142	28,083	1,404	199,390
Clothing & Footwear manufacturing	57	171,494	8,575	488,757
Construction	1,057	43,436	2,172	2,295,600
Engineering	987	80,379	4,019	3,966,727
Financial Services	1,281	254,604	12,730	16,307,364
Food/Drink/Tobacco Manufacturing	789	171,494	8,575	6,765,427
Information Technology	2,245	244,511	12,226	27,446,401
Other Services	27,261	69,764	3,488	95,091,666
Printing & Paper	448	171,494	8,575	3,841,459
Retail/Wholesale/Hotel/Catering	3,618	61,248	3,062	11,079,793
Security	168	69,764	3,488	586,017
Textiles Manufacturing	79	171,494	8,575	677,400
Transport/Communications	757	78,121	3,906	2,956,892
Total				**173,194,890**
Adjusted for Displacement				**122,795,177**
Adjusted for Shadow Price of Labour at 80%				**24,559,035**

Source: Indecon analysis of JLD and CSO Data

It is also necessary to adjust this figure for the estimate of displacement taken from the Indecon survey of participants of 29.1%. We then adjust this figure by the shadow price of labour which is assumed to be 80% in line with Public Spending Code guidance. These adjustments result in an estimated GVA contribution of interns of €24.5 million, net of displacement and accounting for the shadow price of labour.

Indecon would note that while we have included an estimate of the additional GVA attributable to interns during their internships, an estimate for the contribution in GVA terms of additional employment attributable to JobBridge post internship is not possible given limits of available data. Indecon does not have sufficient data on sectoral employment post JobBridge to undertake a meaningful estimation of the likely GVA contribution of these jobs. As such, our CBA will likely underplay the total benefits of the Programme to the wider economy.

It is also difficult to directly attribute the additional jobs generated by JobBridge to specific employment episodes. While Indecon's analysis suggests nearly 3,400 additional people are in employment due to JobBridge participation, it is not possible to directly assign which jobs in particular of all those jobs gained by people post JobBridge are a direct result of JobBridge and which represent deadweight.

Table 6.16 outlines Indecon's calculations of the overall CBA for the JobBridge Programme. The total costs of the Programme, adjusted for the shadow cost of public funds, amount to €127.6 million. Total benefits are estimated at €137.5 million. This leads to an estimate of the overall net benefit of the Programme of €9.8 million between 2011 and 2015.

Table 6.16: Ex-Post Cost-Benefit Analysis of JobBridge

Costs*	
Number of Internship Weeks	1,074,286
Programme Administration Costs	€1,897,096
Wage Costs to Employers	€50,780,928
Costs of Weekly Supplement	€69,828,569
Unemployment Payment 'Lock in' Costs	€5,155,053
Total Costs	**€127,661,646**
Benefits	
Additional Employment (Net of Deadweight & Displacement)	3,385
Additional Income to Scheme Participants from Weekly Top-Up Payment	€53,714,284
Unemployment Payment Savings	€8,493,759
Additional Income to Scheme Participants	€50,780,928
Additional GVA from Interns	€24,559,035
Total Benefits	**€137,548,007**
Net Benefit	**€9,886,361**

***Adjusted for the shadow cost of public funds**
Source: Indecon analysis

As was the case with the Exchequer impact analyses outlined previously, the net benefit estimate in the above table assumes that the employment attributable to JobBridge lasts for only one year. Table 6.17 reports the net benefit from the CBA when the assumptions on the length of employment are changed to two years and two and a half years. Increasing the assumed length of employment increases the total net benefit from the Programme. It should be noted that the net benefits do not increase at the same magnitude as in the Exchequer analyses due to a number of the benefits included in the CBA being attributable only to the internship period and not the post internship employment. The GVA attributable to the interns and the benefits to the interns of the additional top-up payments do not increase as the assumed length of the post-internship employment episodes increases.

Table 6.17: Ex-Post Cost-Benefit Analysis – Alternative Assumptions on Length of Employment			
	Costs	**Benefits**	**Net Benefit**
Assuming Additional Employment lasts:			
1 year	€127,661,646	€137,548,007	€9,886,361
2 years	€178,442,575	€196,822,695	€18,380,120
2.5 years	€203,833,039	€226,460,039	€22,627,000
Source: Indecon analysis			

The findings of the CBA are also subject to adjustment for the impact of the counterfactual when alterations are made to the assumed length of employment after JobBridge participation. As was the case in the Exchequer impact analyses, Indecon has estimated the probability of an unemployed individual who has not participated in JobBridge gaining employment over a 12-month period at 37%. The following table accounts for this counterfactual in the calculation of the benefits of the JobBridge Programme over differing assumptions on employment length.

The overall net benefit of the Programme is lower than that shown in Table 6.17 but remains significantly positive.

Table 6.18: Ex-Post Cost-Benefit Analysis – Accounting for Higher Deadweight			
	Costs	**Benefits**	**Net Benefit**
Assuming Additional Employment lasts:			
1 year	€127,661,646	€137,548,007	€9,886,361
2 years	€159,861,475	€175,133,669	€15,272,194
2.5 years	€180,606,664	€199,348,756	€18,742,092
Source: Indecon analysis			

Indecon's CBA analysis thus suggests that when accounting for the benefits of additional employment attributable to JobBridge to the interns who participate and gain employment, the benefits to the economy in terms of lower public spending on unemployment payments that otherwise would have happened and additional GVA generated by interns, the JobBridge Programme had a net benefit to the economy from the period from 2011 to 2015.

Indecon's estimates of the impact of the JobBridge program on the wider economy by means of a socio-economic CBA indicate that the impact of the program in terms of additional GVA from interns and the value of the weekly top-up payment to the participants alone, excluding benefits of additional employment will lead to a positive cost-benefit ratio.

6.4 Sensitivity Tests

An assumption in both the exchequer impact analysis and socio-economic CBA is the estimate of the displacement effect of the JobBridge programme. The baseline analysis uses evidence from the survey of participants which indicates a displacement rate of 29.1%. This, in our opinion, this represents a conservative assumption.

Indecon has also undertaken a review of the international literature to assess the displacement rate for similar labour market activation schemes in other jurisdictions. One of the most cited academic studies which attempts to estimate the displacement effect of labour market activation programmes was published in the Scandinavian Journal of Economics by Dahlberg et al. (2005) and relates to a labour market programme in Sweden. This study estimated the displacement rate at 65%. Other studies in Sweden have assessed a number of labour market activation programmes and presented a range of displacement effects from 9% to 84% (Calmfors et al, 2002).

An alternative study (Ive, 2001) found evidence of displacement effects of between 20% and 50% across a number of programmes and countries.

Given the mixed international evidence for the level of displacement associated with labour market activation schemes, Indecon has carried out a number of sensitivities around the displacement rate assumed in our baseline analysis. The baseline analysis assumes displacement rate of 29.1%. The following table outlines how the results of the exchequer impact analysis and CBA are impacted by alterations in this assumption.

Table 6.19 outlines the results of our sensitivity analysis. We have undertaken a number of scenarios including displacement rates ranging from 15-50%. The net benefit of the overall CBA remains positive for all employment length assumptions for a displacement rate up to 50%.

Table 6.19: Sensitivity Analysis on Displacement Rate

	Net Exchequer Benefit	Net CBA Benefit
Displacement Rate: 15%		
Assuming Additional Employment lasts:		
1 year	-€18,705,094	€16,459,625
2 years	€15,315,263	€22,916,547
2.5 years	€37,233,353	€27,076,510
Displacement Rate:50%		
Assuming Additional Employment lasts:		
1 year	-€40,797,095	€143,012
2 years	-€20,785,120	€3,941,202
2.5 years	-€7,892,126	€6,388,239
Displacement Rate:75%		
Source: Indecon analysis		

6.5 Summary

- Indecon's independent evidence shows that the Programme was effective in one of the key objectives of enhancing the probability of securing employment. However, it is also necessary to evaluate the overall costs and benefits. This is particularly important given the need to maximise the impact of scarce public expenditure and the fact that the Exchequer funded 100% of the payments to interns. An ex-post analyses of the impact of the JobBridge Programme on the Exchequer finances as well an estimation of the net benefit to the economy of the JobBridge Programme was completed. These evaluations have been carried out in line with both the Public Spending Code and the latest European Commission guidance.
- Table 6.20 summaries the findings of the Indecon cost-benefit analysis from an Exchequer perspective. It important to note that Indecon's analysis assumes a 130% shadow price of public funds and an 80% opportunity cost of internship employment. Our analysis also takes account of displacement impacts. The results suggest that if the additional employment of interns (above the levels which would have occurred in any case) only last one year or less, the costs to the Exchequer are greater than the Exchequer savings in terms of lower social welfare payments and tax receipts. However, if the additional employment lasts two or more years, there is a net direct financial benefit for the Exchequer.
- The direct Exchequer impacts do not take account of the wider potential benefits of the scheme in terms of skill enhancement, increased gross value added and any higher income for interns once they secure employment where relevant. If these are taken into account, the Programme is seen as having a positive economic benefit.

Table 6.20: Exchequer Impact and Cost Benefit Analyses – Summary of Findings

	Exchequer Impact	Economic Cost-Benefit Analysis
Assuming Additional Employment lasts:		
1 year	-€27,605,014	€9,886,361
2 years	€771,966	€15,272,194

Source: Indecon analysis

7 Key Findings and Suggested Policy Changes

7.1 Summary of Conclusions

The key findings from our analysis are presented in the next table.

Our analysis suggests that the key to understanding the Programme is to see it as a mixture between a work experience/training programme and employment support initiative. JobBridge has benefits in keeping interns close to the labour market, but a majority of interns were dissatisfied with the value of the top-up payment. In addition, problems have arisen in a small number of cases which led to dissatisfaction among a minority of interns which have damaged the overall public perception of the Programme.

Summary of Key Findings
Labour Market Context
1. Major changes have occurred in the Irish labour market since JobBridge was introduced. The significant decline in unemployment which has occurred since the Programme was introduced is important in assessing the continued relevance of the Scheme in its current form.
Counterfactual Impact Evaluation
2. Compared with a control group of individuals on the Live Register our econometric analysis demonstrates that the Programme provides additionality in terms of the probability of being employed of 32%.
3. The results suggest much more positive impacts on enhancing the probability of subsequently obtaining paid employment than has been evident for many other labour market activation programmes.
Jobseekers and Hosts Experience and Perceptions of Scheme
4. On the experience of interns post the Programme there were high levels of progression to employment with 64.2% of interns currently employed and 9.6% pursuing further education or training.
5. Our research with over 10,000 interns indicated that 70% of interns felt that the internship gave them new skills but this was not the experience of all interns and 18% did not perceive they have secured new skills.
6. A high percentage of 70% of interns also felt the Programme had provided an opportunity to gain quality work experience.
7. 49% of interns felt JobBridge gave them the opportunity to secure formal training but 33% did not receive such training.
8. The value of the top-up payment was the aspect with the highest dissatisfaction levels with 28% indicating they were very dissatisfied and a further 23.4% dissatisfied with this aspect of the scheme.
9. The majority of interns (53.9%) overall were either satisfied or very satisfied with JobBridge. However, nearly a third of interns were dissatisfied or very dissatisfied. Not surprisingly there were higher levels of satisfaction (61%) among interns who were in employment.
10. There was a high level of satisfaction with various aspects of the JobBridge Scheme among host organisations.
11. 89.5% of host organisations were very satisfied or satisfied with the work performance and engagement of the interns.
Cost-Benefit Analysis
12. While the Programme was effective in enhancing the probability of securing employment, it is essential to evaluate the costs and benefits adjusted for the levels of deadweight, job displacement and opportunity costs of employment and public funding.
13. The results of our analysis of the impact of the Programme on the Exchequer suggest that if the additional employment of interns only lasts one year or less, the costs to the Exchequer exceed the Exchequer savings in terms of lower social welfare payments and additional tax receipts. However, if the additional employment lasts 2 years there is a net Exchequer benefit.
14. Our overall economic cost-benefit analysis taking account of increased employment and incomes, indicates a positive economic cost-benefit ratio.

SUGGESTIONS FOR CHANGE

The next table presents a summary of Indecon's independent opinions on changes which should be considered. These are designed not only to ensure that the positive features of the Programme, which have led to high levels of progression to employment, are retained, but also that JobBridge should be replaced with a new smaller targeted programme which is more appropriate to current labour market conditions and which addresses factors which led to some interns not securing the benefits which the majority of interns experienced. All of the suggestions have been guided by the empirical evidence presented in this independent evaluation.

Summary of Suggestions for Change
1: JobBridge should be replaced with a new Activation Measure taking account of the current features of the Irish Labour Market and targeted on a narrow group of potential employers.
2: The new Programme should provide interns with the opportunity for training and potential employment.
3: Consideration should be given to removing the cap in top-up payments as this in effect represents a maximum wage.
4: Employers who participate in the new Programme should be required to fund part of the Programme to reduce the cost to the Exchequer and to minimise displacement impacts.
5: There is merit in a significant reduction in the number of interns taken on by public sector organisations unless these organisations have the potential to offer future jobs to interns.
6: The period of trainee work experience which would be supported by public expenditure should be restricted to a maximum of 3 months.
7: After a 3-month period, host companies/organisation interested in extending the internship should be required to pay the interns at least the Minimum Wage.
8: Additional restrictions on eligibility for host companies/organisation should be introduced to minimise the potential for displacement. Increased monitoring is also required. In addition, existing administrative supports which are available to JobBridge interns/host organisations and which have proved to be beneficial should be incorporated into the new Programme.
9: All host organisations should specify in recruitment advertisements the nature of training to be provided to interns.
10: Organisation who recruit interns who are long term unemployed should be incentivised.

1. JobBridge should be replaced with a new Activation Measure taking account of the current features of the Irish Labour Market and targeted on a narrow group of potential employers.

JobBridge has been a successful and effective labour market intervention. The majority of interns have secured employment and the econometric modelling demonstrates the Programme has had a beneficial net impact on progression to employment compared to the counterfactual position. However, since the scheme was introduced there has been a dramatic improvement in the labour market which means that a more targeted smaller scale programme is now appropriate.

At present internships can continue for up to nine months and this represents a high level of subsidy. Indecon's judgement is that given the levels of deadweight and the existence of some displacement, this is no longer justified in the current labour market. Modifications to the scheme should therefore be introduced by targeting potential employers for participation based on eligibility criteria.

The targeting proposed is designed to reduce the Exchequer costs, minimise deadweight and address issues which have arisen for a minority of interns. In particular, the targeting should be to limit the scheme to those employers who are willing to contribute to the financial cost and are also likely to be in a position to offer employment to interns. The targeting should be such as to exclude employers who are not willing to provide training/skill development.

The scheme in its current format should therefore be replaced with a new Programme. This new Programme should retain the features that have made the scheme effective, and which maintain a close relationship with employment and which secures high levels of job progression.

2. **The new Programme should provide interns with the opportunity for training and potential employment.**

A majority of interns were satisfied or very satisfied with the level of on the job training and work experience opportunities provided but some interns were dissatisfied with this aspect. 49% of interns agreed/strongly agreed that JobBridge had provided an opportunity to secure formal training as part of the JobBridge but 33% disagreed or strongly disagreed that such opportunities were provided. This evidence suggests the importance for any new initiative to provide both the opportunity for training and potential employment. There is therefore merit in reinforcing the importance of incorporating training/skill development in all of the host organisations. This issue is also dealt with in the recommendations on advertising of the internship but the branding of the Programme should also be such as to highlight the necessity for training.

Indecon recognises that the programme objective is primarily employment progression and that there are limits to the extent to which formal training can be incorporated in the programme. However, Indecon feels that interns should be provided with some level of skills enhancement as part of the JobBridge internship. Indecon does not envisage formal accredited training as being a requirement of the programme as this would impact on the attractiveness of the scheme and employers' willingness to take part.

3. **Consideration should be given to removing the cap in top-up payments, as this in effect represents a maximum wage.**

A feature of JobBridge is that the amount which interns receive is capped regardless of the quality of qualifications or performance of interns. This cap also does not take account of differing labour market conditions in different sectors. This means that host organisations are prevented under the rules of the scheme from offering higher levels of payment to interns.

As outlined in our report, the aspect of JobBridge which received most dissatisfaction by interns was the cap on the level of top-up payments. This reflects the reality that while JobBridge is a training/work experience Programme, the interns are making a valuable input, and in some cases may after an initial period be undertaking similar activities to paid employees. As a result, the cap on top-up payments is a cause for dissatisfaction and in effect represents a maximum wage. We are of the opinion that consideration should be given to removing the cap in a revised scheme. The problems with this cap are recognised by both interns and host organisations. Permitting employers to be able to provide payment to interns in excess of the cap was recommended by a number of interns and employers during our research.

4. **Employers who participate in the new Programme should be required to fund part of the Programme in order to reduce the cost to the Exchequer and to minimise displacement impacts.**

At present 100% of the costs paid to interns on the JobBridge Programme is funded for by the Exchequer. Indecon believes that in the current labour market this is no longer appropriate. Employers should therefore be required to provide a significant financial contribution to the Scheme. This would mean lower costs for the Exchequer and would help to minimise displacement impacts.

Our cost-benefit analysis indicated that while the Programme had an overall benefit, the direct costs to the Exchequer were too high if jobs only lasted one year or less. When account is also taken of the benefit to host organisations and the current labour market environment, this suggests the merits of securing a greater financial contribution from employers.

There are two policy options which Indecon considered to secure a greater contribution from employers, namely, an up-front payment contribution per intern to participate in the scheme, or secondly, that employers should be required to directly fund 100% of the top up.

While the option of an up-front contribution would be administratively easier, there are also a number of benefits in the alternative approach of requiring employers to fund 100% of the top-up payments. These include the fact that it would be very hard to set an up-front payment at an appropriate level. If set too high, it would damage the willingness of hosts to participate particularly given uncertainty on whether interns would stay for the full internship period. It could also represent a cash flow problem for SMEs. If, however, the up-front payment is set at a more modest level, the Exchequer costs may be higher than necessary and could incentivise job displacement. Feedback from our research indicated that a number of interns and hosts felt that employers who participated in the Programme should be in a position to contribute to the costs and to provide higher payments to interns.

5. **There is merit in a significant reduction in the number of interns taken on by public sector organisations unless these organisations have the potential to offer future jobs to interns.**

The design of any new Programme should have at its centre the interest of interns and should be guided by an evidence based approach. During the research for this evaluation, a number of interns expressed frustration where the host was not in a position to offer subsequent employment, even when the intern had performed well. Much higher levels of overall dissatisfaction with JobBridge were experienced by interns who were subsequently not in employment. Only 19.8% of interns who were hosted by public sector organisations were currently employed with their JobBridge host organisation. The results presented in our analysis showed that a smaller percentage of interns obtained jobs in public sector and voluntary host organisations compared to commercial companies. We therefore believe that as part of the proposed targeting there should be restrictions on the number of interns taken on by public sector organisations unless they have the potential to offer interns future jobs. There may, however, be some limited exceptions to this and public sector experience and training could enhance employability in certain cases (for example in the case of participants in the Crafts Council of Ireland scheme). A higher level of eligibility conditions concerning the level of training provided should be met in such cases. However, where public sector organisations have the potential to offer interns subsequent employment there would be no reason why they should have any different eligibility criteria than would apply to commercial organisations.

6. **The period of trainee/work experience which would be supported by public expenditure should be restricted to a maximum of three months.**

In the current labour market, the level of state subsidy is too high even though there is a net economic benefit of the current Programme. Our analysis also provides some tentative evidence that the extension of the length of internship may not have had a significant impact on progression to employment although as most interns were on a nine-month internship it is difficult to be definitive on this. We also believe that significant work experience benefits can be secured within a three-month period and after that interns should become employees if the employers wish them to remain. This would result in higher incomes for interns after three months and would reduce the levels of state subsidies.

In periods of very high levels of unemployment, nine or even twelve-month internships may have been valid but this no longer applies. Indecon accepts that for some interns a longer internship programme, even in the current labour market, may be beneficial and we therefore considered a policy option to restrict internships to a six-month period. The reasons why Indecon has proposed the shorter three-month period is that despite any potential benefits to interns or hosts, a longer period would double the Exchequer costs of the scheme and may provide a greater incentive for job displacement. Furthermore, it would delay the transition to full time employment for interns. A number of interns, during our research, expressed frustration that the period of internship programme was longer than three months and that their income was capped for this longer period.

On balance, Indecon recommends a three-month internship but would propose that any host willing to offer a longer-term paid internship, should be free to do so. However, for periods longer than three months all of the costs should be borne by the organisation and not by the State. There may also be merit in considering internships of up to six months for participants who have been long term unemployed.

7. **After a three-month period, host companies/organisations interested in extending the internship should be required to pay the interns at least the Minimum Wage.**

In view of the dissatisfaction among interns with the income earned we believe that after a three-month period any host organisation interested in extending the internship should be required to pay interns at least the minimum wage. In many cases we believe if host organisations are free to pay higher levels than the top up as per our recommendations, market conditions will result in some interns receiving payment levels in excess of the minimum wage even during the internship. Full employment rights should also attach after the three-month period.

8. **Additional restrictions on eligibility for host companies/organisations should be introduced to minimise the potential for displacement. Increased monitoring is required. In addition, existing administrative supports which are available to JobBridge interns/ host organisations and which have proved to be beneficial should be enhanced and incorporated in the new Programme.**

The evidence presented in this research project showed that most interns were satisfied with the quality of the work experience and many other aspects of the Programme with the exception of the levels of Top-Up Payment. However, a minority of hosts did not meet the expectations of interns. There is also evidence that for a minority of hosts, job displacement occurred and additional monitoring of eligibility criteria is required. We believe that further restrictions should be placed on such host companies to minimise the potential for displacement. A requirement that the host companies would contribute to the cost of the Programme and that after three months would be required to pay at least the minimum wage would reduce potential displacement. In addition, we believe that commercial companies who receive four or more interns and do not offer employment positions to any interns should not be eligible for new positions under the scheme. In addition, specification of the level of training that will be provided should be part of the eligibility criteria. Furthermore, any company which has implemented redundancies in the relevant division should not be permitted to recruit interns under the Programme and this should be actively monitored. We also recommend that a condition of participation of the scheme is that any hosts that have misstated their eligibility for participation should be required to refund all state payments incurred with interest.

Contact by case officers with interns should take place at the start of the internship, during the internship and near the end to support interns to achieve their objectives. With the proposed revisions, a more targeted Programme with a smaller number of host organisations is envisaged. The reduced numbers should enable more active monitoring to ensure full compliance with the eligibility criteria of the proposed new scheme.

Aspects of the existing administrative supports have contributed to the success of JobBridge and should be incorporated in the new Programme.

9. **All host organisations should specify in recruitment advertisements the nature of training to be provided to interns.**

As the proposed new Programme would be focused on providing training and building of skills, there is merit in requiring hosts to specify the nature of the training or skill enhancement to be provided. Organisations which do not do this should not be eligible for participation in the new Programme. This would help address dissatisfaction by a minority of interns with the support for the development of skills as outlined in our evidence.

10. Organisations who recruit interns who are long term unemployed should be incentivised.

Indecon considered whether eligibility should be restricted to those with longer periods of unemployment. The evidence in our evaluation showed that the Programme had a positive impact on progression to employment for those who were short-term unemployed as well as for the longer-term unemployed. Indecon is of the view that early intervention was a factor in the effectiveness of the Programme and we note that JobBridge is the only activation measure available to short term unemployed.

Indecon accepts that there is a need for organisations to be incentivised to recruit interns who are in long-term unemployment and we therefore believe such companies should be eligible for pro-rata payments of the JobsPlus Scheme. We believe that this approach is more appropriate than restricting the new internships scheme only to those who have longer unemployment periods. Indecon is cognisant of the potential issues with clarity of mixing different incentives but believes that some additional incentives are appropriate to assist the employment of long-term unemployed individuals. An alternative to the proposed JobsPlus integration may be to provide a longer JobBridge internship period for those participants who are long-term unemployed.

7.2 Conclusions

The suggestions for change in this independent report take account of the empirical evidence concerning the impact of the JobBridge initiative and the experience of interns. Indecon accepts, however, that there may be other ways to achieve the objectives which have guided our suggestions. We believe, however, that the proposed new internship/training scheme should retain the successful features of JobBridge which resulted in it being one of the more effective labour market activation schemes and one which resulted in the majority of interns being satisfied with the Programme. However, radical changes are proposed for a new more targeted Programme which would address problems which emerged with JobBridge. These are likely to result in a much smaller targeted scheme and one where more of the costs are funded by employers and less by Exchequer subsidies. The new Programme should also provide higher levels of payment to interns.

The proposed changes particularly the higher financial contribution from employers and the restriction of any subsidy to a three-month period would significantly enhance both the Exchequer returns and the wider net economic benefits of the initiative.

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Annex 1 Additional Regression Output and Covariate Balance Summaries for Main IPWRA Model

A1.1 ATET for IPWRA Model using Employment in Two Years as Dependent Variable

Table A1.1: IPWRA Model – ATET - Employment Two Years in the Future				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.1308	0.0095	0.000	572,287
2012 Month 9	0.1195	0.0082	0.000	533,714
2012 Month 12	0.1277	0.0078	0.000	505,796
2013 Month 3	0.1169	0.0077	0.000	462,851
Source: Indecon Analysis				

A1.2 Covariate Balance Summaries for IPWRA Model

Table A1.2: IPWRA Model – Covariate Balance Summary – 2012 Month 9				
	Raw		**Weighted**	
Number of obs	653,274		653,274	
Treated obs	3,342		326,625	
Control obs	649,932		326,649	
	Standardised Differences		**Variance Ratio**	
	Raw	**Weighted**	**Raw**	**Weighted**
Gender	-0.0773	0.0002	1.0219	1.0000
Age	-0.5123	-0.0010	0.4902	0.9986
Age squared	-0.5360	-0.0010	0.4149	1.1102
Average number of children	-0.0777	-0.0006	0.7161	0.9264
Eligibility	0.2402	-0.0002	1.2886	0.9999
Duration of previous status	0.0631	0.0001	0.6352	0.5504
Average Live Register payment	0.1646	-0.0008	0.5766	0.7215
Previous Occupation	0.2191	-0.0001	1.3553	0.9999
Irish	0.1853	0.0001	0.6876	0.9997
Time employed in last year	-0.8549	0.0012	0.3196	0.5982
Married	0.5114	0.0005	0.9342	0.9996
Region	0.0183	0.0000	1.0004	1.0000
Average Earnings	-0.2426	0.0000	0.2496	0.2051
Source: Indecon Analysis				

Table A1.3: IPWRA Model – Covariate Balance Summary – 2012 Month 12				
	Raw		**Weighted**	
Number of obs	630,913		630,913	
Treated obs	3,708		315,445	
Control obs	627,205		315,468	
	Standardised Differences		**Variance Ratio**	
	Raw	**Weighted**	**Raw**	**Weighted**
Gender	-0.1034	-0.0001	1.0270	1.0000
Age	-0.4737	-0.0010	0.5125	0.9989
Age squared	-0.5008	-0.0010	0.4354	1.0934
Average number of children	-0.0614	-0.0006	0.7700	0.9522
Eligibility	0.1821	0.0000	1.2381	1.0000
Duration of previous status	0.0100	0.0002	0.6072	0.7494
Average Live Register payment	0.1862	-0.0009	0.5716	0.6824
Previous Occupation	0.1950	-0.0001	1.3247	0.9999
Irish	0.1786	-0.0001	0.6997	1.0003
Time employed in last year	-0.7924	0.0011	0.3676	0.6527
Married	0.4813	0.0006	0.9477	0.9996
Region	0.0071	0.0002	1.0004	1.0000
Average Earnings	-0.2634	0.0008	0.2782	0.4805
Source: Indecon Analysis				

Table A1.4: IPWRA Model – Covariate Balance Summary – 2013 Month 3				
	Raw		**Weighted**	
Number of obs	604,915		604,915	
Treated obs	4,096		302,448	
Control obs	600,819		302,467	
	Standardised Differences		**Variance Ratio**	
	Raw	**Weighted**	**Raw**	**Weighted**
Gender	-0.1329	-0.0004	1.0342	1.0000
Age	-0.4733	-0.0009	0.5409	0.9988
Age squared	-0.4958	-0.0009	0.4584	1.0786
Average number of children	-0.0451	-0.0008	0.8524	0.9699
Eligibility	0.1807	-0.0002	1.2173	0.9998
Duration of previous status	-0.0200	0.0004	0.4985	0.7067
Average Live Register payment	0.1665	-0.0010	0.5636	0.6765
Previous Occupation	0.1566	0.0001	1.2704	1.0001
Irish	0.1771	-0.0001	0.7040	1.0003
Time employed in last year	-0.7656	0.0013	0.3607	0.6478
Married	0.4869	0.0007	0.9303	0.9996
Region	-0.0081	0.0001	0.9999	1.0000
Average Earnings	-0.2970	0.0010	0.2585	0.6454
Source: Indecon Analysis				

Table A1.5: IPWRA Model – Covariate Balance Summary – 2013 Month 6				
	Raw		**Weighted**	
Number of obs	575,249		575,249	
Treated obs	3,911		287,587	
Control obs	571,338		287,662	
	Standardised Differences		**Variance Ratio**	
	Raw	**Weighted**	**Raw**	**Weighted**
Gender	-0.1234	-0.0005	1.0325	1.0001
Age	-0.4802	-0.0007	0.5444	0.9991
Age squared	-0.5024	-0.0007	0.4582	1.0709
Average number of children	-0.0206	-0.0007	0.9239	0.9645
Eligibility	0.0874	-0.0004	1.1043	0.9996
Duration of previous status	-0.0362	0.0001	0.4728	0.6652
Average Live Register payment	0.1676	-0.0008	0.5747	0.6700
Previous Occupation	0.1373	-0.0001	1.2382	0.9999
Irish	0.1776	-0.0002	0.7010	1.0004
Time employed in last year	-0.7415	0.0016	0.3313	0.5857
Married	0.4737	0.0005	0.9280	0.9997
Region	-0.0249	0.0000	0.9988	1.0000
Average Earnings	-0.3166	0.0008	0.2415	0.7216
Source: Indecon Analysis				

Table A1.6: IPWRA Model – Covariate Balance Summary – 2013 Month 9				
	Raw		**Weighted**	
Number of obs	546,328		546,328	
Treated obs	3,924		273,137	
Control obs	542,404		273,191	
	Standardised Differences		**Variance Ratio**	
	Raw	**Weighted**	**Raw**	**Weighted**
Gender	-0.1363	-0.0005	1.0343	1.0001
Age	-0.4823	-0.0006	0.5587	0.9989
Age squared	-0.5021	-0.0007	0.4743	1.0770
Average number of children	-0.0122	-0.0007	0.9844	0.9759
Eligibility	0.0378	-0.0007	1.0447	0.9992
Duration of previous status	-0.1060	0.0003	0.4005	0.7918
Average Live Register payment	0.1496	-0.0006	0.5757	0.6670
Previous Occupation	0.1183	-0.0005	1.2078	0.9993
Irish	0.1733	-0.0002	0.7051	1.0005
Time employed in last year	-0.7151	0.0016	0.3377	0.6027
Married	0.5033	0.0005	0.9024	0.9996
Region	-0.0312	-0.0001	0.9981	1.0000
Average Earnings	-0.3437	0.0008	0.1749	0.5579
Source: Indecon Analysis				

Table A1.7: IPWRA Model – Covariate Balance Summary – 2013 Month 12				
	Raw		**Weighted**	
Number of obs	510,788		510,788	
Treated obs	3,551		255,377	
Control obs	507,237		255,412	
	Standardised Differences		**Variance Ratio**	
	Raw	**Weighted**	**Raw**	**Weighted**
Gender	-0.1341	-0.0007	1.0353	1.0001
Age	-0.4957	-0.0006	0.5549	0.9989
Age squared	-0.5160	-0.0006	0.4678	1.0745
Average number of children	-0.0415	-0.0007	0.8740	0.9790
Eligibility	0.0444	-0.0008	1.0538	0.9991
Duration of previous status	-0.1199	0.0001	0.3856	0.8339
Average Live Register payment	0.1371	-0.0006	0.5558	0.6672
Previous Occupation	0.0891	-0.0003	1.1604	0.9995
Irish	0.1677	-0.0002	0.7158	1.0004
Time employed in last year	-0.7096	0.0015	0.3399	0.6323
Married	0.5140	0.0006	0.8949	0.9996
Region	-0.0261	-0.0001	0.9983	1.0000
Average Earnings	-0.3761	0.0010	0.1551	0.5603
Source: Indecon Analysis				

Table A1.8: IPWRA Model – Covariate Balance Summary – 2014 Month 3				
	Raw		**Weighted**	
Number of obs	470,612		470,612	
Treated obs	3,652		235,288	
Control obs	466,960		235,324	
	Standardised Differences		**Variance Ratio**	
	Raw	**Weighted**	**Raw**	**Weighted**
Gender	-0.1475	-0.0009	1.0395	1.0001
Age	-0.4860	-0.0008	0.6028	0.9990
Age squared	-0.5007	-0.0008	0.5121	1.0577
Average number of children	-0.0411	-0.0008	0.8872	0.9813
Eligibility	0.0344	-0.0005	1.0382	0.9995
Duration of previous status	-0.0853	0.0002	0.4424	0.7632
Average Live Register payment	0.0937	-0.0005	0.5425	0.6697
Previous Occupation	0.0830	-0.0001	1.1536	0.9998
Irish	0.1551	-0.0002	0.7394	1.0004
Time employed in last year	-0.7037	0.0016	0.3141	0.6182
Married	0.4871	0.0008	0.9051	0.9994
Region	-0.0234	-0.0001	0.9984	1.0000
Average Earnings	-0.3853	0.0011	0.1697	0.6523
Source: Indecon Analysis				

Annex 2 Additional Regression Output and Covariate Balance Summaries for PSM Model

A2.1 ATET for PSM Model with Employment in Two Years as Dependent Variable

Table A2.1: PSM Model – ATET - Employment Two Years in the Future				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.1397	0.0140	0.0000	54,181
2012 Month 9	0.1275	0.0121	0.0000	51,517
2012 Month 12	0.1236	0.0114	0.0000	49,478
2013 Month 3	0.1089	0.0110	0.0000	46,400
Source: Indecon analysis				

A2.2 Covariate Balance Summaries for PSM Model

Table A2.2: PSM Model – Covariate Balance Summary – 2012 Month 9				
	Raw		**Matched**	
Number of obs	66,966		6,464	
Treated obs	3,232		3,232	
Control obs	63,734		3,232	
	Standardised Differences		**Variance Ratio**	
	Raw	**Matched**	**Raw**	**Matched**
Previous Occupation	0.2350	-0.0081	1.3973	0.9913
Gender	-0.0973	0.0391	1.0310	0.9933
Irish	0.1608	-0.0147	0.7169	1.0368
Age	-0.5198	-0.0014	0.5418	0.9731
Age squared	-0.5264	-0.0043	0.4524	1.0305
Average number of children	-0.1290	-0.0100	0.6103	0.8709
Eligibility	0.1442	-0.0010	1.1440	0.9992
Duration of previous status	-0.4697	-0.0194	0.0536	0.7874
Average Live Register payment	0.0406	0.0037	0.5172	0.7934
Time on Live Register last 5 years	0.1510	-0.0118	0.5180	0.6151
Time employed in last year	-0.8781	0.0059	0.3319	0.6524
Married	0.5169	-0.0091	0.9303	1.0062
Region	0.0151	0.0074	1.0004	1.0000
Average Earnings	-0.2088	0.0284	0.2848	0.3666
Source: Indecon Analysis				

Table A2.3: PSM Model – Covariate Balance Summary -t-tests – 2012 Month 9

Variable	Unmatched / Matched	Mean Treated	Mean Control	%bias	%reduct |bias|	t	p>|t|	V(T)/ V(C)
d_occ	U	.26078	.16235	24.3		9.30	0.000	.
	M	.26078	.27597	-3.7	84.6	-0.91	0.362	.
sex	U	.54629	.61017	-13.0		-4.65	0.000	.
	M	.54629	.5318	2.9	77.3	0.77	0.440	.
d_irish	U	.89682	.82795	20.1		6.62	0.000	.
	M	.89682	.88728	2.8	86.1	0.82	0.414	.
age	U	34.693	40.328	-52.7		-16.87	0.000	0.54*
	M	34.693	34.94	-2.3	95.6	-0.71	0.476	0.90*
age_2	U	1284	1774.8	-53.1		-16.60	0.000	0.45*
	M	1284	1310.4	-2.9	94.6	-0.95	0.344	0.94
child_avg	U	.13874	.21886	-15.8		-5.08	0.000	0.56*
	M	.13874	.14437	-1.1	93.0	-0.35	0.730	0.97
eligibility_2012m9_l1	U	.32155	.26532	12.4		4.51	0.000	.
	M	.32155	.3159	1.2	89.9	0.32	0.747	.
duration_prev_2012m9	U	243.32	670.15	-47.2		-12.79	0.000	0.04*
	M	243.32	246.72	-0.4	99.2	-0.32	0.751	0.73*
lr_pay_avg	U	73.084	71.709	2.1		0.66	0.509	0.50*
	M	73.084	72.681	0.6	70.7	0.18	0.854	0.75*
timelr_2012m9_5y_ago	U	.31466	.28498	11.9		3.78	0.000	0.50*
	M	.31466	.30674	3.2	73.3	0.92	0.358	0.64*
timeemp_2012m9_1y_ago	U	.17744	.49668	-89.0		-26.73	0.000	0.32*
	M	.17744	.172	1.5	98.3	0.52	0.602	0.68*
d_married	U	.66572	.40949	53.2		18.63	0.000	.
	M	.66572	.64947	3.4	93.7	0.91	0.362	.
d_dubmesw	U	.51449	.49568	3.8		1.34	0.181	.
	M	.51449	.49329	4.2	-12.7	1.13	0.260	.
earnings_avg	U	14151	17088	-21.9		-6.50	0.000	0.29*
	M	14151	13286	6.5	70.5	2.14	0.032	0.53*

* if variance ratio outside [0.90; 1.11] for U and [0.90; 1.11] for M

Source: Indecon analysis

Table A2.4: PSM Model – Covariate Balance Summary – 2012 Month 12				
	Raw		**Matched**	
Number of obs	65,810		7,150	
Treated obs	3,575		3,575	
Control obs	62,235		3,575	
	Standardised Differences		**Variance Ratio**	
	Raw	**Matched**	**Raw**	**Matched**
Previous Occupation	0.2108	-0.0298	1.3629	0.9672
Gender	-0.1254	0.0364	1.0361	0.9957
Irish	0.1487	0.0095	0.7388	0.9782
Age	-0.4795	-0.0263	0.5616	0.9569
Age squared	-0.4916	-0.0281	0.4690	0.9834
Average number of children	-0.1067	0.0007	0.6794	0.9934
Eligibility	0.0964	0.0025	1.1062	1.0023
Duration of previous status	-0.4607	-0.0072	0.0562	0.9033
Average Live Register payment	0.0661	0.0119	0.5245	0.7695
Time on Live Register last 5 years	0.1666	-0.0054	0.5056	0.5876
Time employed in last year	-0.8044	-0.0029	0.3821	0.6880
Married	0.4698	0.0044	0.9521	0.9975
Region	0.0078	-0.0050	1.0004	1.0000
Average Earnings	-0.2330	0.0088	0.3306	0.7029
Source: Indecon Analysis				

Table A2.5: PSM Model – Covariate Balance Summary -t-tests – 2012 Month 12

Variable	Unmatched / Matched	Mean Treated	Mean Control	%bias	%reduct |bias|	t-test t	t-test p>|t|	V(T)/ V(C)
d_occ	U	.25223	.16006	22.9		9.43	0.000	.
	M	.25223	.25282	-0.1	99.4	-0.04	0.968	.
sex	U	.54481	.61167	-13.6		-5.26	0.000	.
	M	.54481	.55549	-2.2	84.0	-0.62	0.533	.
d_irish	U	.88961	.82464	18.6		6.70	0.000	.
	M	.88961	.88368	1.7	90.9	0.54	0.587	.
age	U	35.136	40.237	-47.3		-16.53	0.000	0.56*
	M	35.136	35.12	0.1	99.7	0.05	0.961	0.97
age_2	U	1318.4	1767.7	-48.4		-16.52	0.000	0.48*
	M	1318.4	1319.5	-0.1	99.8	-0.04	0.967	1.02
child_avg	U	.15767	.22282	-12.3		-4.41	0.000	0.66*
	M	.15767	.17568	-3.4	72.4	-1.07	0.282	0.89*
eligibility_2012m12_l1	U	.2724	.25393	4.2		1.63	0.104	.
	M	.2724	.27834	-1.3	67.9	-0.39	0.700	.
duration_prev_2012m12	U	246.73	661.63	-45.8		-13.61	0.000	0.05*
	M	246.73	247.78	-0.1	99.7	-0.10	0.920	0.90*
lr_pay_avg	U	75.956	72.432	5.3		1.83	0.067	0.52*
	M	75.956	79.437	-5.2	1.2	-1.67	0.095	0.71*
timelr_2012m12_5y_ago	U	.33683	.29732	15.4		5.29	0.000	0.50*
	M	.33683	.34878	-4.7	69.8	-1.40	0.163	0.55*
timeemp_2012m12_1y_ago	U	.20643	.48919	-76.2		-25.57	0.000	0.41*
	M	.20643	.195	3.1	96.0	1.08	0.279	0.75*
d_married	U	.64392	.41031	48.1		18.31	0.000	.
	M	.64392	.64688	-0.6	98.7	-0.18	0.857	.
d_dubmesw	U	.51276	.49741	3.1		1.18	0.238	.
	M	.51276	.51306	-0.1	98.1	-0.02	0.986	.
earnings_avg	U	13927	16960	-21.5		-7.23	0.000	0.42*
	M	13927	13372	3.9	81.7	1.39	0.166	0.76*

* if variance ratio outside [0.91; 1.10] for U and [0.91; 1.10] for M

Source: Indecon analysis

Table A2.6: PSM Model – Covariate Balance Summary – 2013 Month 3				
	Raw		**Matched**	
Number of obs	64,524		7,904	
Treated obs	3,952		3,952	
Control obs	60,572		3,952	
	Standardised Differences		**Variance Ratio**	
	Raw	**Matched**	**Raw**	**Matched**
Previous Occupation	0.1704	-0.0105	1.3047	0.9866
Gender	-0.1550	0.0091	1.0443	0.9990
Irish	0.1545	-0.0254	0.7318	1.0631
Age	-0.4862	-0.0160	0.5931	0.9675
Age squared	-0.4925	-0.0179	0.4954	0.9990
Average number of children	-0.0906	0.0154	0.7561	1.0233
Eligibility	0.0901	0.0113	1.0915	1.0099
Duration of previous status	-0.4714	-0.0062	0.0488	0.9083
Average Live Register payment	0.0428	0.0090	0.5207	0.7647
Time on Live Register last 5 years	0.1352	0.0130	0.5190	0.6259
Time employed in last year	-0.7793	0.0016	0.3721	0.6882
Married	0.4831	0.0103	0.9314	0.9935
Region	-0.0053	0.0228	1.0000	1.0015
Average Earnings	-0.2673	0.0124	0.3036	0.7763
Source: Indecon Analysis				

Table A2.7: PSM Model – Covariate Balance Summary -t-tests – 2013 Month 3

Variable	Unmatched / Matched	Mean Treated	Mean Control	%bias	%reduct |bias|	t	p>|t|	V(T)/ V(C)
d_occ	U	.23857	.16139	19.4		8.48	0.000	.
	M	.23857	.25099	-3.1	83.9	-0.92	0.359	.
sex	U	.53231	.61697	-17.2		-7.18	0.000	.
	M	.53231	.53653	-0.9	95.0	-0.27	0.788	.
d_irish	U	.88718	.82269	18.4		7.16	0.000	.
	M	.88718	.88519	0.6	96.9	0.20	0.843	.
age	U	34.959	40.104	-47.3		-18.03	0.000	0.59*
	M	34.959	35.252	-2.7	94.3	-0.98	0.326	0.96
age_2	U	1309.9	1756.8	-48.0		-17.90	0.000	0.50*
	M	1309.9	1334	-2.6	94.6	-1.01	0.314	0.99
child_avg	U	.17432	.2296	-10.1		-3.97	0.000	0.71*
	M	.17432	.19159	-3.2	68.8	-1.05	0.295	0.82*
eligibility_2013m3_l1	U	.27684	.26442	2.8		1.16	0.245	.
	M	.27684	.2828	-1.3	52.0	-0.42	0.674	.
duration_prev_2013m3	U	242.69	664.93	-46.6		-15.06	0.000	0.05*
	M	242.69	246.95	-0.5	99.0	-0.46	0.643	0.85*
lr_pay_avg	U	77.08	73.94	4.7		1.76	0.079	0.55*
	M	77.08	80.525	-5.1	-9.8	-1.75	0.079	0.71*
timelr_2013m3_5y_ago	U	.34779	.31076	14.0		5.23	0.000	0.50*
	M	.34779	.35923	-4.3	69.1	-1.43	0.154	0.56*
timeemp_2013m3_1y_ago	U	.22084	.47765	-68.7		-25.24	0.000	0.44*
	M	.22084	.21061	2.7	96.0	1.03	0.303	0.77*
d_married	U	.64911	.41634	48.0		19.64	0.000	.
	M	.64911	.63941	2.0	95.8	0.64	0.521	.
d_dubmesw	U	.50696	.49819	1.8		0.73	0.468	.
	M	.50696	.49155	3.1	-75.8	0.98	0.329	.
earnings_avg	U	13162	16693	-25.6		-9.27	0.000	0.39*
	M	13162	12576	4.2	83.4	1.71	0.088	0.84*

* if variance ratio outside [0.92; 1.09] for U and [0.92; 1.09] for M

Source: Indecon analysis

Table A2.8: PSM Model – Covariate Balance Summary – 2013 Month 6				
	Raw		**Matched**	
Number of obs	61,729		7,628	
Treated obs	3,814		3,814	
Control obs	57,915		3,814	
	Standardised Differences		**Variance Ratio**	
	Raw	**Matched**	**Raw**	**Matched**
Previous Occupation	0.1548	-0.0250	1.2781	0.9678
Gender	-0.1420	0.0074	1.0410	0.9990
Irish	0.1538	-0.0004	0.7306	1.0010
Age	-0.4955	0.0126	0.5961	1.0025
Age squared	-0.5014	0.0113	0.4948	1.0443
Average number of children	-0.0709	-0.0204	0.8018	0.9236
Eligibility	0.0046	-0.0070	1.0049	0.9931
Duration of previous status	-0.4758	-0.0303	0.0467	0.8883
Average Live Register payment	0.0430	-0.0165	0.5300	0.7474
Time on Live Register last 5 years	0.1230	-0.0163	0.5318	0.6354
Time employed in last year	-0.7701	0.0091	0.3380	0.6351
Married	0.4714	-0.0063	0.9281	1.0041
Region	-0.0263	0.0105	0.9987	1.0010
Average Earnings	-0.2989	0.0213	0.3101	0.7731
Source: Indecon Analysis				

Table A2.9: PSM Model – Covariate Balance Summary -t-tests – 2013 Month 6

Variable	Unmatched / Matched	Mean Treated	Mean Control	%bias	%reduct |bias|	t	p>|t|	V(T)/ V(C)
d_occ	U	.23833	.16265	19.0		8.29	0.000	.
	M	.23833	.24865	-2.6	86.4	-0.77	0.443	.
sex	U	.53022	.61679	-17.6		-7.35	0.000	.
	M	.53022	.54029	-2.0	88.4	-0.64	0.520	.
d_irish	U	.87912	.82398	15.6		6.13	0.000	.
	M	.87912	.88133	-0.6	96.0	-0.22	0.828	.
age	U	34.832	39.954	-46.8		-17.96	0.000	0.61*
	M	34.832	35.092	-2.4	94.9	-0.85	0.394	0.93
age_2	U	1304.5	1744.9	-47.2		-17.73	0.000	0.52*
	M	1304.5	1329.1	-2.6	94.4	-1.00	0.315	0.96
child_avg	U	.18332	.23278	-8.9		-3.51	0.000	0.72*
	M	.18332	.21421	-5.6	37.5	-1.79	0.074	0.73*
eligibility_2013m6_l1	U	.23686	.28065	-10.0		-4.07	0.000	.
	M	.23686	.25209	-3.5	65.2	-1.13	0.258	.
duration_prev_2013m6	U	234.55	659.93	-47.8		-15.55	0.000	0.05*
	M	234.55	243.85	-1.0	97.8	-1.07	0.285	0.90*
lr_pay_avg	U	78.41	75.505	4.3		1.61	0.107	0.56*
	M	78.41	80.876	-3.6	15.1	-1.25	0.211	0.73*
timelr_2013m6_5y_ago	U	.35806	.32572	11.9		4.45	0.000	0.51*
	M	.35806	.36954	-4.2	64.5	-1.39	0.163	0.57*
timeemp_2013m6_1y_ago	U	.22715	.46695	-64.6		-23.68	0.000	0.42*
	M	.22715	.21065	4.4	93.1	1.70	0.090	0.74*
d_married	U	.65455	.42586	47.1		19.29	0.000	.
	M	.65455	.64545	1.9	96.0	0.61	0.543	.
d_dubmesw	U	.49189	.49896	-1.4		-0.59	0.558	.
	M	.49189	.48108	2.2	-52.9	0.69	0.490	.
earnings_avg	U	12599	16349	-27.3		-9.85	0.000	0.37*
	M	12599	12063	3.9	85.7	1.64	0.100	0.90*

* if variance ratio outside [0.92; 1.09] for U and [0.92; 1.09] for M

Source: Indecon analysis

Table A2.10: PSM Model – Covariate Balance Summary – 2013 Month 9				
	Raw		**Matched**	
Number of obs	58,687		7,562	
Treated obs	3,781		3,781	
Control obs	54,906		3,781	
	Standardised Differences		**Variance Ratio**	
	Raw	**Matched**	**Raw**	**Matched**
Previous Occupation	0.1311	-0.0135	1.2369	0.9814
Gender	-0.1558	0.0061	1.0432	0.9994
Irish	0.1429	0.0114	0.7455	0.9737
Age	-0.4988	0.0108	0.6116	0.9907
Age squared	-0.5022	0.0082	0.5123	1.0327
Average number of children	-0.0574	-0.0218	0.8775	0.8662
Eligibility	-0.0510	-0.0105	0.9496	0.9888
Duration of previous status	-0.4802	-0.0164	0.0430	0.9147
Average Live Register payment	0.0238	-0.0096	0.5350	0.7636
Time on Live Register last 5 years	0.0893	-0.0109	0.5324	0.6560
Time employed in last year	-0.7372	0.0192	0.3469	0.6537
Married	0.4975	0.0182	0.9056	0.9874
Region	-0.0307	0.0011	0.9983	1.0001
Average Earnings	-0.3329	0.0146	0.2261	0.6353
Source: Indecon Analysis				

Table A2.11: PSM Model – Covariate Balance Summary -t-tests – 2013 Month 9

Variable	Unmatched / Matched	Mean: Treated	Mean: Control	%bias	%reduct |bias|	t-test: t	t-test: p>|t|	V(T)/V(C)
d_occ	U	.22245	.16178	15.4		6.54	0.000	.
	M	.22245	.22348	-0.3	98.3	-0.08	0.939	.
sex	U	.52947	.61337	-17.0		-6.96	0.000	.
	M	.52947	.53409	-0.9	94.5	-0.29	0.773	.
d_irish	U	.88314	.82652	16.1		6.20	0.000	.
	M	.88314	.9039	-5.9	63.3	-2.10	0.036	.
age	U	34.239	39.963	-52.3		-19.52	0.000	0.58*
	M	34.239	34.571	-3.0	94.2	-1.07	0.284	0.89*
age_2	U	1260.7	1748.4	-52.5		-19.16	0.000	0.49*
	M	1260.7	1293.9	-3.6	93.2	-1.34	0.179	0.91*
child_avg	U	.1912	.23689	-8.0		-3.12	0.002	0.78*
	M	.1912	.21176	-3.6	55.0	-1.17	0.244	0.88*
eligibility_2013m9_l1	U	.22091	.28533	-14.9		-5.86	0.000	.
	M	.22091	.23603	-3.5	76.5	-1.12	0.261	.
duration_prev_2013m9	U	227.4	666.16	-48.9		-15.55	0.000	0.04*
	M	227.4	237.32	-1.1	97.7	-1.14	0.255	0.88*
lr_pay_avg	U	78.286	76.548	2.5		0.94	0.348	0.55*
	M	78.286	81.247	-4.3	-70.4	-1.50	0.133	0.79*
timelr_2013m9_5y_ago	U	.36627	.33877	9.9		3.63	0.000	0.51*
	M	.36627	.382	-5.6	42.8	-1.86	0.064	0.60*
timeemp_2013m9_1y_ago	U	.22104	.46108	-64.8		-23.16	0.000	0.41*
	M	.22104	.20346	4.7	92.7	1.78	0.074	0.73*
d_married	U	.67401	.43076	50.4		20.09	0.000	.
	M	.67401	.67324	0.2	99.7	0.05	0.959	.
d_dubmesw	U	.49616	.49857	-0.5		-0.20	0.845	.
	M	.49616	.49846	-0.5	4.6	-0.14	0.885	.
earnings_avg	U	11964	15945	-29.1		-10.26	0.000	0.36*
	M	11964	11478	3.5	87.8	1.43	0.152	0.79*

* if variance ratio outside [0.92; 1.09] for U and [0.92; 1.09] for M

Source: Indecon analysis

Table A2.12: PSM Model – Covariate Balance Summary – 2013 Month 12				
	Raw		**Matched**	
Number of obs	55,365		6,862	
Treated obs	3,431		3,431	
Control obs	51,934		3,431	
	Standardised Differences		**Variance Ratio**	
	Raw	**Matched**	**Raw**	**Matched**
Previous Occupation	0.1039	0.0051	1.1929	1.0079
Gender	-0.1563	-0.0137	1.0456	1.0019
Irish	0.1394	0.0076	0.7534	0.9827
Age	-0.5125	0.0021	0.5996	1.0096
Age squared	-0.5186	0.0030	0.4985	1.0599
Average number of children	-0.0843	-0.0170	0.7814	0.9034
Eligibility	-0.0338	-0.0020	0.9656	0.9978
Duration of previous status	-0.4806	-0.0058	0.0464	0.9725
Average Live Register payment	0.0143	0.0021	0.5196	0.7817
Time on Live Register last 5 years	0.0725	-0.0028	0.5189	0.6421
Time employed in last year	-0.7303	0.0120	0.3479	0.6724
Married	0.5016	0.0130	0.8971	0.9906
Region	-0.0232	0.0000	0.9985	1.0000
Average Earnings	-0.3653	0.0060	0.1982	0.5365
Source: Indecon Analysis				

Table A2.13: PSM Model – Covariate Balance Summary -t-tests – 2013 Month 12

Variable	Unmatched / Matched	Mean Treated	Mean Control	%bias	%reduct |bias|	t	p>|t|	V(T)/ V(C)
d_occ	U	.20548	.15487	13.2		5.39	0.000	.
	M	.20548	.2074	-0.5	96.2	-0.14	0.886	.
sex	U	.52548	.61776	-18.7		-7.42	0.000	.
	M	.52548	.53068	-1.1	94.4	-0.31	0.753	.
d_irish	U	.87397	.82593	13.5		5.07	0.000	.
	M	.87397	.87945	-1.5	88.6	-0.50	0.615	.
age	U	34.426	40.08	-50.8		-18.45	0.000	0.61*
	M	34.426	34.523	-0.9	98.3	-0.30	0.767	0.94
age_2	U	1278.9	1760.7	-50.9		-18.11	0.000	0.52*
	M	1278.9	1291.5	-1.3	97.4	-0.49	0.625	0.98
child_avg	U	.19119	.24216	-8.8		-3.32	0.001	0.76*
	M	.19119	.21084	-3.4	61.5	-1.07	0.286	0.86*
eligibility_2013m12_l1	U	.2126	.27595	-14.8		-5.64	0.000	.
	M	.2126	.22301	-2.4	83.6	-0.76	0.446	.
duration_prev_2013m12	U	220.59	641.27	-48.1		-14.79	0.000	0.05*
	M	220.59	231.78	-1.3	97.3	-1.23	0.218	0.87*
lr_pay_avg	U	79.558	78.527	1.5		0.53	0.593	0.55*
	M	79.558	83.531	-5.8	-285.6	-1.88	0.060	0.70*
timelr_2013m12_5y_ago	U	.37563	.3529	8.0		2.85	0.004	0.51*
	M	.37563	.38875	-4.6	42.3	-1.46	0.145	0.58*
timeemp_2013m12_1y_ago	U	.21968	.44637	-61.1		-21.26	0.000	0.43*
	M	.21968	.20178	4.8	92.1	1.74	0.082	0.76*
d_married	U	.67726	.43192	50.9		19.61	0.000	.
	M	.67726	.67014	1.5	97.1	0.46	0.646	.
d_dubmesw	U	.48548	.49487	-1.9		-0.74	0.461	.
	M	.48548	.48301	0.5	73.7	0.15	0.882	.
earnings_avg	U	11462	15592	-32.1		-10.51	0.000	0.22*
	M	11462	10904	4.3	86.5	1.89	0.059	0.59*

* if variance ratio outside [0.91; 1.10] for U and [0.91; 1.10] for M

Source: Indecon analysis

Table A2.14: PSM Model – Covariate Balance Summary – 2014 Month 3				
	Raw		**Matched**	
Number of obs	52,081		7,140	
Treated obs	3,570		3,570	
Control obs	48,511		3,570	
	Standardised Differences		**Variance Ratio**	
	Raw	**Matched**	**Raw**	**Matched**
Previous Occupation	0.0916	-0.0029	1.1749	0.9954
Gender	-0.1708	0.0056	1.0496	0.9994
Irish	0.1232	0.0092	0.7836	0.9799
Age	-0.4997	-0.0055	0.6505	0.9964
Age squared	-0.5010	-0.0053	0.5462	1.0212
Average number of children	-0.0828	-0.0238	0.8044	0.9508
Eligibility	-0.0447	-0.0072	0.9578	0.9927
Duration of previous status	-0.4728	-0.0121	0.0500	0.9519
Average Live Register payment	-0.0323	-0.0323	0.5118	0.7447
Time on Live Register last 5 years	0.0140	-0.0238	0.5173	0.6610
Time employed in last year	-0.7236	0.0234	0.3203	0.6682
Married	0.4686	0.0192	0.9052	0.9871
Region	-0.0196	0.0107	0.9987	1.0012
Average Earnings	-0.3744	0.0319	0.2172	0.7037
Source: Indecon Analysis				

Table A2.15: PSM Model – Covariate Balance Summary -t-tests – 2014 Month 3

Variable	Unmatched / Matched	Mean Treated	Mean Control	%bias	%reduct |bias|	t-test t	t-test p>|t|	V(T)/ V(C)
d_occ	U	.1974	.14875	12.9		5.35	0.000	.
	M	.1974	.19221	1.4	89.3	0.41	0.684	.
sex	U	.51429	.62446	-22.4		-9.04	0.000	.
	M	.51429	.53792	-4.8	78.5	-1.47	0.142	.
d_irish	U	.87377	.82352	14.1		5.38	0.000	.
	M	.87377	.88494	-3.1	77.8	-1.06	0.288	.
age	U	34.417	40.092	-50.1		-18.74	0.000	0.65*
	M	34.417	34.503	-0.8	98.5	-0.26	0.793	0.97
age_2	U	1285.3	1762.9	-50.0		-18.30	0.000	0.55*
	M	1285.3	1294.3	-0.9	98.1	-0.35	0.729	1.01
child_avg	U	.20615	.2516	-7.6		-2.95	0.003	0.81*
	M	.20615	.20378	0.4	94.8	0.13	0.895	1.05
eligibility_2014m3_l1	U	.21091	.29041	-18.4		-7.11	0.000	.
	M	.21091	.22675	-3.7	80.1	-1.19	0.235	.
duration_prev_2014m3	U	217.39	657.57	-48.5		-15.34	0.000	0.05*
	M	217.39	235.41	-2.0	95.9	-1.93	0.053	0.83*
lr_pay_avg	U	80.216	80.768	-0.8		-0.29	0.772	0.52*
	M	80.216	82.151	-2.8	-250.6	-0.97	0.334	0.74*
timelr_2014m3_5y_ago	U	.3759	.36479	3.9		1.41	0.159	0.50*
	M	.3759	.3869	-3.9	1.1	-1.27	0.203	0.61*
timeemp_2014m3_1y_ago	U	.20385	.42726	-61.4		-21.69	0.000	0.41*
	M	.20385	.18175	6.1	90.1	2.32	0.020	0.78*
d_married	U	.66909	.43358	48.7		19.14	0.000	.
	M	.66909	.67039	-0.3	99.4	-0.09	0.932	.
d_dubmesw	U	.47532	.49054	-3.0		-1.22	0.224	.
	M	.47532	.49039	-3.0	1.0	-0.94	0.350	.
earnings_avg	U	10453	15153	-36.8		-12.29	0.000	0.21*
	M	10453	9834.5	4.8	86.8	2.30	0.021	0.69*

* if variance ratio outside [0.91; 1.09] for U and [0.91; 1.09] for M

Source: Indecon analysis

Annex 3 Falsification Tests

A3.1 Falsification Test – Random Assignment of Treatment

Table A3.1: PSM Model – ATET - Employment One Year in the Future				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.1691	0.0266	0.0000	6,372
2012 Month 9	0.1548	0.0227	0.0000	6,377
2012 Month 12	0.1190	0.0219	0.0000	6,302
2013 Month 3	0.1336	0.0185	0.0000	6,277
2013 Month 6	0.0975	0.0184	0.0000	6,113
2013 Month 9	0.1112	0.0180	0.0000	5,902
2013 Month 12	0.1186	0.0199	0.0000	5,469
2014 Month 3	0.1133	0.0198	0.0000	5,198
Source: Indecon analysis				

Table A3.2: PSM Model – ATET - Employment One Year in the Future – Random Treatment Assignment				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	-0.0138	0.0124	0.2670	6,372
2012 Month 9	0.0142	0.0129	0.2730	6,377
2012 Month 12	0.0024	0.0123	0.8460	6,302
2013 Month 3	0.0061	0.0129	0.6380	6,277
2013 Month 6	-0.0031	0.0128	0.8080	6,113
2013 Month 9	-0.0117	0.0132	0.3740	5,902
2013 Month 12	0.0208	0.0138	0.1310	5,469
2014 Month 3	-0.0040	0.0146	0.7830	5,198
Source: Indecon analysis				

A3.2 Falsification Test – Education as an Outcome Variable

Table A3.3: PSM Model – ATET - Education One Year in the Future				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	-0.0138	0.0124	0.2670	6,372
2012 Month 9	0.0142	0.0129	0.2730	6,377
2012 Month 12	0.0024	0.0123	0.8460	6,302
2013 Month 3	0.0061	0.0129	0.6380	6,277
2013 Month 6	-0.0031	0.0128	0.8080	6,113
2013 Month 9	-0.0117	0.0132	0.3740	5,902
2013 Month 12	0.0208	0.0138	0.1310	5,469
2014 Month 3	-0.0040	0.0146	0.7830	5,198
Source: Indecon analysis				

Annex 4 Sensitivity Testing

A4.1 IPWRA Model: Not Unemployed as Dependent Variable

Table A4.1: IPWRA Model – ATET – Not Unemployed One Year in the Future				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.0364	0.0121	0.0030	16,797
2012 Month 9	0.0480	0.0107	0.0000	17,067
2012 Month 12	0.0271	0.0091	0.0030	17,436
2013 Month 3	0.0195	0.0085	0.0220	17,857
2013 Month 6	0.0417	0.0086	0.0000	17,631
2013 Month 9	0.0533	0.0090	0.0000	17,153
2013 Month 12	0.0482	0.0083	0.0000	16,814
2014 Month 3	0.0477	0.0088	0.0000	16,724
Source: Indecon analysis				

Table A4.2: IPWRA Model – ATET – Not Unemployed Two Years in the Future				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.0548	0.0104	0.0000	16,783
2012 Month 9	0.0321	0.0090	0.0000	17,026
2012 Month 12	0.0442	0.0083	0.0000	17,397
2013 Month 3	0.0546	0.0080	0.0000	17,852
Source: Indecon analysis				

A4.2 PSM Model: Coefficient Sensitivity to Calliper and Nearest Neighbour Specification

Table A4.3: PSM Model Sensitivity - ATET - Employment 1 Year in the Future	
	ATET
2012 Month 6	
Calliper (.4) & Nearest Neighbour (2)	0.1691
Calliper (.3) & Nearest Neighbour (2)	0.1584
Calliper (.1) & Nearest Neighbour (1)	0.1502
2012 Month 9	
Calliper (.4) & Nearest Neighbour (2)	0.1548
Calliper (.3) & Nearest Neighbour (2)	0.1511
Calliper (.1) & Nearest Neighbour (1)	0.1502
2012 Month 12	
Calliper (.4) & Nearest Neighbour (2)	0.1190
Calliper (.3) & Nearest Neighbour (2)	0.1316
Calliper (.1) & Nearest Neighbour (1)	0.1111
2013 Month 3	
Calliper (.4) & Nearest Neighbour (2)	0.1336
Calliper (.3) & Nearest Neighbour (2)	0.1220
Calliper (.1) & Nearest Neighbour (1)	0.1057
2013 Month 6	
Calliper (.4) & Nearest Neighbour (2)	0.0975
Calliper (.3) & Nearest Neighbour (2)	0.0975
Calliper (.1) & Nearest Neighbour (1)	0.1032
2013 Month 9	
Calliper (.4) & Nearest Neighbour (2)	0.1112
Calliper (.3) & Nearest Neighbour (2)	0.1215
Calliper (.1) & Nearest Neighbour (1)	0.1187
2013 Month 12	
Calliper (.4) & Nearest Neighbour (2)	0.1186
Calliper (.3) & Nearest Neighbour (2)	0.1182
Calliper (.1) & Nearest Neighbour (1)	0.1115
2014 Month 3	
Calliper (.4) & Nearest Neighbour (2)	0.1133
Calliper (.3) & Nearest Neighbour (2)	0.0769
Calliper (.1) & Nearest Neighbour (1)	0.0677
Source: Indecon analysis	

A4.3 IPWRA Model: Sensitivity to Specification of Treatment Variable

Table A4.4: IPWRA Model – ATET – Employed One Year in the Future – Treatment Level 1				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.1246	0.0144	0.000	17,690
2012 Month 9	0.1122	0.0122	0.000	17,590
2012 Month 12	0.1167	0.0113	0.000	17,333
2013 Month 3	0.1201	0.0106	0.000	17,049
2013 Month 6	0.1191	0.0104	0.000	16,325
2013 Month 9	0.1279	0.0108	0.000	15,558
2013 Month 12	0.1167	0.0109	0.000	14,558
2014 Month 3	0.1229	0.0110	0.000	13,617
Source: Indecon analysis				

Table A4.5: IPWRA Model – ATET – Employed One Year in the Future – Treatment Level 2				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.1810	0.0399	0.0000	12,687
2012 Month 9	0.1225	0.0232	0.0000	12,505
2012 Month 12	0.1197	0.0200	0.0000	12,454
2013 Month 3	0.1494	0.0193	0.0000	15,454
2013 Month 6	0.1348	0.0188	0.0000	14,774
2013 Month 9	0.1450	0.0196	0.0000	14,029
2013 Month 12	0.1273	0.0205	0.0000	13,137
2014 Month 3	0.1521	0.0217	0.0000	12,073
Source: Indecon analysis				

Table A4.6: IPWRA Model – ATET – Employed 2 Years in the Future – Treatment Level 1				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.1313	0.0172	0.000	10,821
2012 Month 9	0.1122	0.0150	0.000	10,422
2012 Month 12	0.1213	0.0140	0.000	10,251
2013 Month 3	0.1201	0.0136	0.000	9,719
Source: Indecon analysis				

Table A4.7: IPWRA Model – ATET – Employed 2 Years in the Future – Treatment Level 2				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.1110	0.0416	0.0080	10,133
2012 Month 9	0.1124	0.0267	0.0000	9,628
2012 Month 12	0.1219	0.0225	0.0000	9,373
2013 Month 3	0.1198	0.0242	0.0000	8,667
Source: Indecon analysis				

A4.4 IPWRA and PSM Models: Sensitivity to Inclusion of Current Status as a Control Variable

Table A4.8: IPWRA Model – ATET – Employed One Year in the Future – Including Current Status as Control Variable

Time Period	ATET	Standard Error	P-Value	Sample Size
2012 Month 9	0.2122	0.0077	0.000	584,811
2012 Month 12	0.1656	0.0072	0.000	565,494
2013 Month 3	0.1748	0.0069	0.000	543,464
2013 Month 6	0.1822	0.0070	0.000	516,586
2013 Month 9	0.1844	0.0070	0.000	488,157
2013 Month 12	0.1751	0.0074	0.000	457,052
2014 Month 3	0.1747	0.0071	0.000	423,102

Source: Indecon analysis

Table A4.9: PSM Model – ATET – Employed One Year in the Future – Including Current Status as Control Variable

Time Period	ATET	Standard Error	P-Value	Sample Size
2012 Month 9	0.2108	0.0110	0.0000	66,888
2012 Month 12	0.1737	0.0098	0.0000	65,789
2013 Month 3	0.1799	0.0092	0.0000	64,485
2013 Month 6	0.1845	0.0098	0.0000	61,683
2013 Month 9	0.1840	0.0098	0.0000	58,629
2013 Month 12	0.1747	0.0101	0.0000	55,352
2014 Month 3	0.1906	0.0093	0.0000	52,061

Source: Indecon analysis

A4.5 IPWRA Modes: Sensitivity to Controlling for Previous Participation in Labour Market Activation Schemes

Indecon undertook additional sensitivity analysis in order to control for the potential impact of participants having previously participated in other labour market activation schemes. Previous participation in such schemes may impact the employment outcomes of JobBridge participants.

The analysis was completed using the codes for other types of labour market activation programmes in the JLD. This was among the sub-categories of the status variable, which is a categorical variable. This was then converted to a zero-one variable for prior non-JobBridge labour market activation or otherwise. This was then broken down into a further sensitivity, using a) any labour market activation programme 2 years prior; and b) any labour market activation programme ever prior to the JobBridge evaluation month.

Two separate estimations were then undertaken:

1) the dummy variable was included as an explanatory factor for treatment and outcome (tables A4.10-11);

2) the individuals who were given a 1 in the prior labour market activation indicator variable were dropped from the analysis (A4.12-13).

The following tables demonstrate that controlling for previous participation in other labour market activation schemes has no material impact on the findings of the IPWRA model on the employment outcomes associated with participation in JobBridge.

Table A4.10: IPWRA Model – ATET – Employed One Year in the Future – No Control for Previous Participation in Labour Market Activation Schemes

Time Period	ATET	Standard Error	P-Value	Sample Size
2012 Month 6	0.1246	0.0144	0.0000	17,690
2012 Month 9	0.1118	0.0123	0.0000	17,572
2012 Month 12	0.1186	0.0117	0.0000	17,216
2013 Month 3	0.1235	0.0114	0.0000	16,763
2013 Month 6	0.1296	0.0115	0.0000	15,942
2013 Month 9	0.1322	0.0114	0.0000	15,264
2013 Month 12	0.1233	0.0120	0.0000	14,233
2014 Month 3	0.1266	0.0121	0.0000	13,229

Source: Indecon analysis

Table A4.11: IPWRA Model – ATET – Employed One Year in the Future –Controlling for Previous Participation in Labour Market Activation Schemes				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.1254	0.0144	0.0000	17,690
2012 Month 9	0.1128	0.0123	0.0000	17,572
2012 Month 12	0.1208	0.0117	0.0000	17,216
2013 Month 3	0.1257	0.0114	0.0000	16,763
2013 Month 6	0.1307	0.0115	0.0000	15,942
2013 Month 9	0.1326	0.0114	0.0000	15,264
2013 Month 12	0.1230	0.0120	0.0000	14,233
2014 Month 3	0.1262	0.0121	0.0000	13,229
Source: Indecon analysis				

Table A4.12: IPWRA Model – ATET – Employed One Year in the Future –Excluding All Individuals who have Previously Participated in Labour Market Activation Programmes in past 2 years				
Time Period	**ATET**	**Standard Error**	**P-Value**	**Sample Size**
2012 Month 6	0.1224	0.0156	0.0000	16,390
2012 Month 9	0.1119	0.0133	0.0000	17,572
2012 Month 12	0.1203	0.0127	0.0000	17,216
2013 Month 3	0.1269	0.0124	0.0000	15,327
2013 Month 6	0.1315	0.0125	0.0000	14,553
2013 Month 9	0.1321	0.0124	0.0000	13,850
2013 Month 12	0.1197	0.0130	0.0000	12,894
2014 Month 3	0.1292	0.0133	0.0000	11,970
Source: Indecon analysis excluding from our control group any individual on Live Register who was in any labour market programme for 3 months or more at any time over the past 2 years.				

Table A4.13: IPWRA Model – ATET – Employed One Year in the Future –Excluding All Individuals who have Previously Participated in Labour Market Activation Programmes since 2000

Time Period	ATET	Standard Error	P-Value	Sample Size
2012 Month 6	0.1169	0.0162	0.0000	15,112
2012 Month 9	0.1135	0.0141	0.0000	14,872
2012 Month 12	0.1298	0.0135	0.0000	14,581
2013 Month 3	0.1341	0.0132	0.0000	14,127
2013 Month 6	0.1374	0.0131	0.0000	13,421
2013 Month 9	0.1400	0.0131	0.0000	12,791
2013 Month 12	0.1313	0.0136	0.0000	11,914
2014 Month 3	0.1332	0.0139	0.0000	11,053

Source: Indecon analysis excluding from our control group any individual on Live Register who was in any labour market programme for 1 month or more at any time since 2000.

Annex 5 Reasons for Finishing Internship

Table A5.1: Reason for Finishing Internship - 2011														
Reason for Finishing Internship	**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Job with Host Organisation	0	0.0%	3	10.7%	7	6.8%	14	13.9%	14	11.1%	27	18.5%	65	12.8%
Job Elsewhere	0	0.0%	7	25.0%	14	13.6%	19	18.8%	22	17.5%	31	21.2%	93	18.3%
End of Internship	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.7%	1	0.2%
Further Education / Training	0	0.0%	4	14.3%	14	13.6%	3	3.0%	2	1.6%	2	1.4%	25	4.9%
Returned to Job Search	0	0.0%	0	0.0%	2	1.9%	4	4.0%	7	5.6%	4	2.7%	17	3.3%
Took up another JobBridge Placement	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Placement was not suitable	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	4	100%	14	50.0%	65	63.1%	56	55.4%	77	61.1%	77	52.7%	293	57.7%
Unknown	0	0.0%	0	0.0%	1	1.0%	5	5.0%	4	3.2%	4	2.7%	14	2.8%
Total	**4**	**100%**	**28**	**100%**	**103**	**100%**	**101**	**100%**	**126**	**100%**	**146**	**100%**	**508**	**100%**

Source: Indecon analysis of data from DSP/JobBridge database

Table A5.2: Reason for Finishing Internship - 2012												
Reason for Finishing Internship	**January**		**February**		**March**		**April**		**May**		**June**	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Job with Host Organisation	56	18.9%	50	15.6%	72	19.1%	91	26.1%	93	20.8%	197	24.7%
Job Elsewhere	57	19.2%	65	20.2%	93	24.7%	80	22.9%	96	21.5%	120	15.0%
End of Internship	4	1.3%	39	12.1%	28	7.4%	27	7.7%	42	9.4%	86	10.8%
Further Education / Training	6	2.0%	9	2.8%	18	4.8%	7	2.0%	10	2.2%	29	3.6%
Returned to Job Search	48	16.2%	29	9.0%	47	12.5%	43	12.3%	66	14.8%	147	18.4%
Took up another JobBridge Placement	2	0.7%	6	1.9%	7	1.9%	1	0.3%	4	0.9%	4	0.5%
Placement was not suitable	0	0.0%	0	0.0%	1	0.3%	0	0.0%	26	5.8%	52	6.5%
Other	107	36.0%	99	30.8%	91	24.1%	88	25.2%	84	18.8%	110	13.8%
Unknown	17	5.7%	24	7.5%	20	5.3%	12	3.4%	26	5.8%	54	6.8%
Total	**297**	**100%**	**321**	**100%**	**377**	**100%**	**349**	**100%**	**447**	**100%**	**799**	**100%**
Source: Indecon analysis of data from DSP/JobBridge database												

Table A5.3: Reason for Finishing Internship - 2012 (Continued)														
Reason for Finishing Internship	**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Job with Host Organisation	116	21.9%	191	21.2%	137	22.1%	92	17.6%	168	22.4%	121	21.7%	1,384	21.4%
Job Elsewhere	91	17.2%	114	12.7%	87	14.0%	95	18.2%	105	14.0%	70	12.5%	1,073	16.6%
End of Internship	56	10.6%	140	15.6%	57	9.2%	69	13.2%	104	13.8%	107	19.2%	759	11.7%
Further Education / Training	10	1.9%	52	5.8%	92	14.8%	11	2.1%	13	1.7%	7	1.3%	264	4.1%
Returned to Job Search	102	19.3%	167	18.6%	76	12.3%	92	17.6%	144	19.2%	111	19.9%	1,072	16.6%
Took up another JobBridge Placement	3	0.6%	4	0.4%	5	0.8%	5	1.0%	4	0.5%	2	0.4%	47	0.7%
Placement was not suitable	24	4.5%	21	2.3%	38	6.1%	30	5.7%	33	4.4%	36	6.5%	261	4.0%
Other	69	13.0%	88	9.8%	65	10.5%	53	10.2%	82	10.9%	38	6.8%	974	15.1%
Unknown	58	11.0%	122	13.6%	63	10.2%	75	14.4%	98	13.0%	66	11.8%	635	9.8%
Total	**529**	**100%**	**899**	**100%**	**620**	**100%**	**522**	**100%**	**751**	**100%**	**558**	**100%**	**6,469**	**100%**
Source: Indecon analysis of data from DSP/JobBridge database														

Table A5.4: Reason for Finishing Internship - 2013												
Reason for Finishing Internship	**January**		**February**		**March**		**April**		**May**		**June**	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Job with Host Organisation	129	20.9%	142	22.7%	213	25.9%	149	23.0%	187	19.8%	164	15.2%
Job Elsewhere	84	13.6%	80	12.8%	119	14.5%	96	14.8%	145	15.3%	113	10.5%
End of Internship	98	15.9%	77	12.3%	97	11.8%	85	13.1%	119	12.6%	108	10.0%
Further Education / Training	18	2.9%	14	2.2%	22	2.7%	23	3.5%	19	2.0%	29	2.7%
Returned to Job Search	104	16.8%	103	16.5%	127	15.4%	108	16.6%	178	18.8%	208	19.3%
Took up another JobBridge Placement	4	0.6%	4	0.6%	5	0.6%	8	1.2%	7	0.7%	2	0.2%
Placement was not suitable	25	4.0%	32	5.1%	38	4.6%	34	5.2%	45	4.8%	48	4.4%
Other	76	12.3%	87	13.9%	86	10.4%	70	10.8%	121	12.8%	201	18.6%
Unknown	80	12.9%	86	13.8%	116	14.1%	76	11.7%	124	13.1%	206	19.1%
Total	**618**	**100%**	**625**	**100%**	**823**	**100%**	**649**	**100%**	**945**	**100%**	**1,079**	**100%**
Source: Indecon analysis of data from DSP/JobBridge database												

Table A5.5: Reason for Finishing Internship - 2013 (Continued)														
Reason for Finishing Internship	**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Job with Host Organisation	160	23.0%	229	24.3%	119	20.6%	135	20.5%	263	28.5%	121	21.2%	2,011	22.1%
Job Elsewhere	99	14.2%	115	12.2%	96	16.6%	99	15.0%	111	12.0%	58	10.2%	1,215	13.3%
End of Internship	93	13.4%	130	13.8%	43	7.4%	82	12.5%	129	14.0%	113	19.8%	1,174	12.9%
Further Education / Training	13	1.9%	75	7.9%	69	11.9%	29	4.4%	21	2.3%	5	0.9%	337	3.7%
Returned to Job Search	117	16.8%	155	16.4%	60	10.4%	110	16.7%	152	16.5%	111	19.5%	1,533	16.8%
Took up another JobBridge Placement	7	1.0%	10	1.1%	7	1.2%	4	0.6%	12	1.3%	6	1.1%	76	0.8%
Placement was not suitable	46	6.6%	37	3.9%	50	8.6%	35	5.3%	51	5.5%	32	5.6%	473	5.2%
Other	70	10.1%	83	8.8%	67	11.6%	75	11.4%	79	8.6%	48	8.4%	1,063	11.7%
Unknown	91	13.1%	110	11.7%	68	11.7%	89	13.5%	104	11.3%	76	13.3%	1,226	13.5%
Total	**696**	**100%**	**944**	**100%**	**579**	**100%**	**658**	**100%**	**922**	**100%**	**570**	**100%**	**9,108**	**100%**
Source: Indecon analysis of data from DSP/JobBridge database														

Table A5.6: Reason for Finishing Internship - 2014												
Reason for Finishing Internship	**January**		**February**		**March**		**April**		**May**		**June**	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Job with Host Organisation	265	26.9%	171	23.6%	189	24.6%	157	22.4%	229	23.7%	205	17.2%
Job Elsewhere	136	13.8%	101	14.0%	124	16.2%	110	15.7%	155	16.0%	134	11.3%
End of Internship	113	11.5%	93	12.8%	84	11.0%	86	12.3%	98	10.1%	146	12.3%
Further Education / Training	24	2.4%	14	1.9%	15	2.0%	7	1.0%	20	2.1%	31	2.6%
Returned to Job Search	169	17.1%	126	17.4%	137	17.9%	101	14.4%	186	19.2%	283	23.8%
Took up another JobBridge Placement	6	0.6%	9	1.2%	7	0.9%	15	2.1%	6	0.6%	12	1.0%
Placement was not suitable	59	6.0%	46	6.4%	45	5.9%	55	7.9%	55	5.7%	58	4.9%
Other	99	10.0%	90	12.4%	73	9.5%	81	11.6%	92	9.5%	121	10.2%
Unknown	115	11.7%	74	10.2%	93	12.1%	88	12.6%	126	13.0%	201	16.9%
Total	**986**	**100%**	**724**	**100%**	**767**	**100%**	**700**	**100%**	**967**	**100%**	**1,191**	**100%**
Source: Indecon analysis of data from DSP/JobBridge database												

Table A5.7: Reason for Finishing Internship - 2014 (Continued)														
Reason for Finishing Internship	**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Job with Host Organisation	212	22.8%	268	22.1%	138	19.5%	252	25.7%	198	27.0%	142	22.0%	2,426	23.0%
Job Elsewhere	98	10.5%	148	12.2%	130	18.4%	143	14.6%	101	13.8%	70	10.9%	1,450	13.7%
End of Internship	133	14.3%	169	13.9%	48	6.8%	130	13.3%	99	13.5%	162	25.1%	1,361	12.9%
Further Education / Training	20	2.2%	83	6.8%	67	9.5%	34	3.5%	15	2.0%	13	2.0%	343	3.3%
Returned to Job Search	187	20.1%	197	16.2%	94	13.3%	131	13.4%	101	13.8%	88	13.6%	1,800	17.1%
Took up another JobBridge Placement	6	0.6%	6	0.5%	12	1.7%	14	1.4%	7	1.0%	4	0.6%	104	1.0%
Placement was not suitable	47	5.1%	58	4.8%	56	7.9%	62	6.3%	45	6.1%	30	4.7%	616	5.8%
Other	92	9.9%	113	9.3%	85	12.0%	105	10.7%	66	9.0%	54	8.4%	1,071	10.2%
Unknown	135	14.5%	173	14.2%	78	11.0%	109	11.1%	102	13.9%	82	12.7%	1,376	13.0%
Total	**930**	**100%**	**1,215**	**100%**	**708**	**100%**	**980**	**100%**	**734**	**100%**	**645**	**100%**	**10,547**	**100%**
Source: Indecon analysis of data from DSP/JobBridge database														

Table A5.8: Reason for Finishing Internship - 2015												
Reason for Finishing Internship	**January**		**February**		**March**		**April**		**May**		**June**	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Job with Host Organisation	283	27.8%	212	25.5%	199	26.4%	181	23.5%	279	26.5%	220	22.4%
Job Elsewhere	113	11.1%	124	14.9%	90	11.9%	111	14.4%	145	13.8%	117	11.9%
End of Internship	139	13.7%	100	12.0%	111	14.7%	123	16.0%	128	12.2%	159	16.2%
Further Education / Training	16	1.6%	16	1.9%	12	1.6%	14	1.8%	18	1.7%	20	2.0%
Returned to Job Search	167	16.4%	133	16.0%	147	19.5%	110	14.3%	184	17.5%	224	22.9%
Took up another JobBridge Placement	6	0.6%	6	0.7%	3	0.4%	6	0.8%	7	0.7%	6	0.6%
Placement was not suitable	56	5.5%	59	7.1%	52	6.9%	52	6.8%	54	5.1%	38	3.9%
Other	101	9.9%	69	8.3%	52	6.9%	75	9.8%	88	8.4%	62	6.3%
Unknown	136	13.4%	111	13.4%	89	11.8%	97	12.6%	148	14.1%	134	13.7%
Total	**1,017**	**100%**	**830**	**100%**	**755**	**100%**	**769**	**100%**	**1,051**	**100%**	**980**	**100%**
Source: Indecon analysis of data from DSP/JobBridge database												

Table A5.9: Reason for Finishing Internship - 2015 (Continued)														
Reason for Finishing Internship	**July**		**August**		**September**		**October**		**November**		**December**		**Total**	
	No.	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
Job with Host Organisation	215	21.8%	174	20.9%	114	19.8%	208	29.3%	139	24.6%	66	22.8%	2,290	24.5%
Job Elsewhere	101	10.2%	107	12.9%	81	14.1%	85	12.0%	60	10.6%	20	6.9%	1,154	12.3%
End of Internship	163	16.5%	141	16.9%	71	12.3%	78	11.0%	79	14.0%	43	14.9%	1,335	14.3%
Further Education / Training	30	3.0%	49	5.9%	61	10.6%	23	3.2%	11	1.9%	5	1.7%	275	2.9%
Returned to Job Search	197	20.0%	138	16.6%	78	13.6%	117	16.5%	109	19.3%	64	22.1%	1,668	17.8%
Took up another JobBridge Placement	8	0.8%	3	0.4%	3	0.5%	12	1.7%	5	0.9%	4	1.4%	69	0.7%
Placement was not suitable	58	5.9%	49	5.9%	43	7.5%	43	6.1%	30	5.3%	17	5.9%	551	5.9%
Other	66	6.7%	71	8.5%	63	11.0%	70	9.9%	48	8.5%	25	8.7%	790	8.4%
Unknown	149	15.1%	100	12.0%	61	10.6%	73	10.3%	84	14.9%	45	15.6%	1,227	13.1%
Total	**987**	**100%**	**832**	**100%**	**575**	**100%**	**709**	**100%**	**565**	**100%**	**289**	**100%**	**9,359**	**100%**
Source: Indecon analysis of data from DSP/JobBridge database														