Employer Investment Fund (EIF) and Growth and Innovation Fund (GIF) Programme Level Evaluation:

Final Report

Briefing Paper
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UKCES
UK COMMISSION FOR EMPLOYMENT AND SKILLS

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Employer Investment Fund (EIF) and Growth and Innovation Fund (GIF) Programme Level Evaluation

Final report

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Foreword

The UK Commission for Employment and Skills (UKCES) is a publicly funded, industry-led organisation providing leadership on skills and employment issues across the UK. Together, our Commissioners comprise a social partnership of senior leaders of large and small employers from across industry, trade unions, the third sector, further and higher education and all four UK nations.

Our vision is to create, with industry, the best opportunities for the talents and skills of people to drive competitiveness, enterprise and growth in a global economy.

Our ambition is to see industry in the UK create “ladders of opportunity” for everyone to get in and on in work. This means employers improving entry routes into the labour market for young people, ensuring the existing workforce has the skills businesses need to compete and individuals need to progress, and deploying those skills in a way that drives productivity and growth. This is a collective agenda for employers working in partnership with government, trade unions, education providers, industry bodies and local organisations.

Our Research

Our research mobilises impartial and robust national and international business and labour market research to inform choice, practice and policy. We aim to lead the debate with industry to drive better outcomes for skills, jobs and growth.

Our ambition is to cement the UK Commission’s reputation as the ‘go-to’ organisation for distinct high quality business intelligence, and communicate compelling research insights that shape policy development and influence behaviour change.

In order to achieve this, we produce and promote robust business intelligence and insights to ensure that skills development supports choice, competitiveness and growth for local and industrial strategies.

Our programme of research includes:

- producing and updating robust **labour market intelligence**, including though our core products (the Employer Skills Survey (ESS), Employer Perspectives Survey (EPS) and Working Futures Series)
- developing an understanding of what works in policy and practice through **evaluative research**
- providing research **insight** by undertaking targeted thematic reviews which pool and synthesise a range of existing intelligence.

Our research programme is underpinned by a number of core principles, including:

- providing **business intelligence**: through our employer surveys and Commissioner leadership we provide insight on employers’ most pressing priorities

- using evaluative insights to identify **what works** to improve policy and practice, which ensures that our advice and investments are **evidence based**.
- adopting a **longer term, UK-wide, holistic perspective**, which allows us focus on big issues and cross cutting policy areas, as well as assessing the relative merits of differing approaches to employer engagement in skills
- providing **high quality, authoritative and robust data**, and developing a consistent core baseline which allows comparison over time and between countries and sectors.
- being **objective, impartial, transparent and user-friendly**. We are free of any vested interest, and make our LMI as accessible as possible.

We work in strategic partnership with national and international bodies to ensure a co-ordinated approach to research, and combine robust business intelligence with Commissioner leadership and insight.

The overall aims of this evaluation project are to:

- To learn lessons about the delivery of Employer Investment Fund and the Growth Innovation Fund, in order to enable improvements to future skills investment activities in building sustainable skills solutions; and

- To provide an assessment of the impact of the funded projects on skills investment and business activity.

Sharing the findings of our research and engaging with our audience is important to further develop the evidence on which we base our work. Evidence Reports are our chief means of reporting our detailed analytical work. All of our outputs can be accessed at www.gov.uk/government/organisations/uk-commission-for-employment-and-skills

We hope you find this report useful and informative. If you would like to provide any feedback or comments, or have any queries please e-mail info@ukces.org.uk, quoting the report title or series number. We also welcome feedback on Twitter.

Lesley Giles

Deputy Director

UK Commission for Employment and Skills

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Glossary

Apprenticeship Brokerage: The brokerage of apprenticeship places; simplifying the process by which employers find appropriate individuals to fill those places.

ATAs: Apprenticeship Training Agency.

Beneficiary: Employers deriving a direct benefit from EIF and/or GIF intervention.

Delivery Partners (DPs): Organisations in receipt of EIF and/or GIF funding and responsible for the delivery of UKCES investments.

EIF: Employer Investment Fund.

Employer Demand: the nature of the skills and employment challenge and / or opportunity experienced by employers, the consequences of that and how it is experienced; essentially, it is the roots of employer motivation to invest / or not.

Employment Brokerage: The brokerage of unemployed individuals into specific vacancies. These typically take the form of on-line portals.

GIF: Growth and Innovation Fund.

Group training activities (GTAs): Delivery of training via groups of employers, such as collective procurement through networks or Group Training Associations.

Impacts: longer-term broader consequences of EIF or GIF project, whether intended or unintended, on measures such as business profits or sales.

Innovation: the development of products and services which are distinctive from existing offerings through one or more dimensions of novelty.

Large employer: employers with more than 250 employees.

Networks: Services involving networks of employers and (in some cases) training providers through which the training needs of employers can be articulated and tailored solutions obtained.

Outputs: The immediate deliverables of public intervention (e.g. number of businesses engaged or number of new training courses developed, number of members of employer networks).

Outcomes: Effects realised as a consequence of outputs delivered (e.g. number of workers trained, increases in training expenditure).

Service users: Employers that have used the services funded by EIF and/or GIF.

Skills Diagnostics: Support provided to employers to help them understand any skills shortages or skills gaps present within their workforce.

SSC: Sector Skills Council.

SME: Small to medium sized enterprise with fewer than 250 employees.

Stakeholders: For this research this category includes learning providers from private sector, Further Education (FE), Higher Education Institutions (HEIs), local authorities, employer associations, trade unions, professional bodies, schools and other contractors.

Training Brokerage: Services provided to employers and training providers to help employers locate providers of appropriate workforce development or training services.

Executive Summary

Ipsos MORI and the Institute for Employment Studies were commissioned to undertake a programme level evaluation of the Employer Investment Fund (EIF) and Growth and Innovation Fund (GIF). This report presents the evaluation findings which draw on two strands of research:

- An impact analysis using two waves[1] of longitudinal survey with c.900 employers who have engaged in EIF and GIF activities (referred to as 'employer beneficiaries') and a matched comparison sample of c.900 non-participant employers (the 'comparison group'); *and*

- Two waves of qualitative interviews comprising high level consultations with key national stakeholders and more detailed research with nine Delivery Partners to investigate the full range of activities developed and delivered by them. Interviews were also conducted with 56 employer beneficiaries in wave 1 and 52 employer beneficiaries in wave 2 across seven types of activities[2]: Employment Brokerage; Apprenticeship Brokerage; Skills Diagnostics; Training Brokerage; Group Training Activities; and Networks.

Aims and objectives of the evaluation

The overall aims of the evaluation were:

- To learn lessons about the delivery of the two investment funds, in order to enable improvements to the process for UKCES and the investees in building sustainable skills solutions; *and*

- To provide an assessment of the impact of the funded projects on skills investment and business activity.

These two key aims were further supplemented by four specific objectives:

- To develop an understanding of whether the investment projects were encouraging employers to adopt innovative training infrastructure solutions that more effectively met their skills needs;

- To understand the extent to which employers directly engaged with investment projects, increased their investment in workforce skills and increased their performance over and above what they might have done anyway;

- To assess whether investment projects were sustainable and embedded over the longer term; *and*

- To inform gaps in UKCES's evidence on outcomes and impact.

[1] Fieldwork for wave 1 took place in 2014; this is the baseline measure. Wave 2 took place a year later in 2015; this is the follow-up survey to measure 'change' as a result of participation in EIF and GIF.
[2] See section 1.1 for a list of activities.

EIF and GIF

Launched in 2011, the purpose of EIF and GIF was to stimulate a step change in employer leadership and investment in economically valuable skills through co-investment between employers and the UK Commission. EIF and GIF sought to achieve sustained change in how employers engage with, and invest, in skills in order to raise skills levels, improve access to and deployment of skills, and raise business performance. There were 3 rounds of EIF up to 2013 and 4 rounds of GIF to 2014.

The main difference between the two funds was that applications to EIF were restricted solely to Sector Skills Councils (SSCs) and the fund placed a stronger emphasis on development activity. EIF emerged through a process of moving away from a core funding model for SSCs, encouraging them to move to an investment- and outcomes-focused approach. GIF was restricted solely to England and was open to any industry level body, with a stronger emphasis on the sustainability of the infrastructure developed.

EIF and GIF funding was limited to skills and employment infrastructure, with no participation funding available (i.e. direct funding for training specific employees or individuals). Both programmes were time-limited investments, and designed to pump-prime the building of infrastructure that would develop solutions to address needs in a specific area or sector. The programme invited applicants to submit proposals; it was non-prescriptive and gave no direction about the nature of problems or solutions selected for investment. The programmes sought and assessed project bids that were to be demand-led and innovative, with significant co-investment from employers. The overarching aim of the programmes was to provide employers the opportunity to take the lead in articulating their needs and steering the development of the solutions they needed and bring about sustainable change in their industry or sector.

Excluding both EIF round 1 and GIF development projects[3], UKCES had contracted £106 million in pump-prime funding to 120 successful investment proposals, leveraging a further £151 million in matched contributions from employers (in-kind or cash).

A diverse set of activities received investment funding using a variety of delivery mechanisms. However, the evaluation focused solely on projects that benefited employers, as recommended in a 2013 feasibility study for a programme level beneficiary survey[4]. This was to ensure that relevant outcomes and impacts could be more clearly identified and attributed to each intervention. The activities that were within the scope of the evaluation included:

- **Skills Diagnostics**: projects involving direct and indirect engagement with employers, in order to identify and define their skills and training needs, as a means of encouraging them to implement training solutions.

- **Training Brokerage**: services provided to employers and training providers to help employers locate providers of appropriate workforce development or training services.

[3] These were early stage / research projects and so ‘outputs’ to meet the objectives of the programme were not expected as a direct result of that work.
[4] https://www.gov.uk/government/publications/ukces-investment-beneficiaries-survey-feasibility-study

- **Employment Brokerage**: projects focusing on the brokerage of unemployed individuals into specific vacancies.

- **Apprenticeship Brokerage**: projects facilitating the brokerage of apprenticeship places; simplifying the process by which employers find appropriate individuals to fill those apprenticeship places and sometimes providing administrative support for paying apprentice wages.

- **Group training activities (GTAs)**: the delivery of training via groups of employers, such as collective procurement through networks or Group Training Associations.

- **Networks**: projects focusing on the establishment of employer networks to improve engagement with training providers, to act as a collective voice to articulate industry skills needs and, in some cases, to provide a vehicle for collective procurement of training.

Theory of Change and Logic Model

The EIF and GIF programmes were expected to achieve impact through the following outcomes:

- **Training demand:** A key objective of the projects was to induce greater investment in training by employers (either directly or indirectly). This evaluation set out to measure the increase in training provided by firms engaged by the EIF and GIF programmes.

- **Business outcomes:** It was expected that increases in training investments would have benefited businesses in terms of human resources. For example, greater investment in training would improve staff retention and staff proficiency, and therefore reduce overall recruitment costs.

- **Productivity gains:** The primary anticipated economic effect of the EIF and GIF programmes was to raise the productive capacity of workers through their acquisition of new skills. Any effects in these areas would be reflected in enhanced GVA (Gross Value Added) per worker within those firms benefiting directly or indirectly from the training infrastructure developed (driven either by enhanced efficiency or quality). The benefits of greater productivity would accrue to both employees in the form of higher wages (measuring this impact was *not* within the scope of the evaluation), and to employers in the form of higher profits.

It was anticipated that the effect of EIF and GIF would be measurable within the timeframe of the evaluation (one to two years after engagement) in terms of an impact on training volume and expenditure. Business outcomes and productivity gains were anticipated *after* the initial impacts on training behaviour and it was likely that these impacts would only be visible beyond year two of the evaluation.

Impact of EIF and GIF

Overall, the evaluation found that EIF and GIF engagement **prevented a decline in training volume of around 12 percentage points** observed in firms which did not participate in the programmes. It is important to note that this is different to saying that EIF and GIF led to an increase in training volumes. Instead participation in the activities kept the proportion of employees trained at a stable level.

No corresponding impact was detected on investment in training meaning that employers taking part in EIF and GIF activities were not necessarily spending more money to halt the decline in training volumes. Instead the evidence suggests a greater emphasis among employer beneficiaries on more cost-effective training approaches as part of a wider business strategy which was unrelated to participation in EIF and GIF; for example, greater use of digital methods of learning, moving more training in-house and greater use of blended learning approaches.

The evaluation also found that prior to participating in EIF and GIF activities, employer beneficiaries were already investing more heavily in training compared with UK employers generally. This highlights the challenge (and limitation in the scope) for programmes such as EIF and GIF to lead to increases in training investment in the short-term among these types of employers. In particular, the qualitative interviews highlighted that employer beneficiaries' decisions to invest *beyond* their core business requirements was strongly dictated by business performance and availability of funds which are influenced by a host of external factors outside programmes like EIF and GIF.

The evaluation found that EIF and GIF engagement had **increased staff turnover by 2 percentage points**. A possible explanation for this pattern is that employer beneficiaries engaged with EIF and GIF activities because they were anticipating high staff turnover, or that skills acquisition via EIF and GIF activities have made employees more mobile in the labour market though this was beyond the scope of the evaluation, which focused purely on the impact on employer beneficiaries. However, from an employer perspective, the evaluation did ***not*** **detect an impact of EIF and GIF engagement on the proficiency of staff** (though it should be borne in mind that this was a subjective assessment by employer beneficiaries) suggesting that other factors and relationships are at play.

The evaluation did not detect an impact on the recruitment activities of employer beneficiaries in terms of the number of vacancies posted by employers, or the number of vacancies which were filled or which were deemed hard-to-fill. However, among employers using **Apprenticeship Brokerage** activities, the evaluation found a two percentage point reduction in hard-to-fill vacancies, suggesting that these types of activities have been effective in easing recruitment difficulties for employer beneficiaries.

Focusing specifically on **apprenticeship vacancies**, the evaluation found that **participation in EIF and GIF had resulted in a decline in the number of such vacancies**. This was apparent at both the overall level and specifically among employers using Apprenticeship Brokerage and Skills Diagnostic activities (these activities were commonly used together although employer recognition of the latter was limited). At the overall level, participation in EIF and GIF had reduced apprenticeship vacancies (as a percentage of the total workforce) by 0.8 percentage points. The qualitative interviews found evidence of high levels of previous involvement with apprenticeships among employer beneficiaries, and apart from large or very large firms with long-established apprenticeship programmes with regular annual intakes, EIF and GIF beneficiaries did not generally offer apprenticeship vacancies frequently; rather SMEs tended to have roll on / roll-off apprentice programmes. This suggests that programmes like EIF and GIF are unlikely to result in increases in apprentice numbers in the short-term among SMEs already engaged in apprenticeships.

The analysis did **not detect an impact on productivity or profitability**. The causal sequence set out in the logic model anticipated that these benefits would be observed *after* initial impacts on training behaviour, and it was likely that impacts may only be visible beyond year 2 of the

evaluation. However, it should be borne in mind that employer beneficiaries who were engaging in EIF and GIF activities to address long-term problems such as an ageing workforce, future technological changes and potential global competition, did not always make an association between engagement in EIF and GIF activities and an immediate impact on their business performance. This is because the issues that they were attempting to address were also likely to be affected by many other factors in the short-term.

Engagement of employers in design and development of skills solutions

EIF and GIF projects were intended to be 'employer-led' to develop skills infrastructure solutions that employers would be willing to co-invest in.

There was evidence that EIF and GIF have been successful in being 'employer-led': 44 per cent of beneficiaries were involved with the design or set-up of an activity – significantly higher than the national benchmark of 14 per cent. Whilst some of this difference can be attributed to the different make-up of the employer beneficiaries and the general employer population (with EIF and GIF beneficiaries more positively pre-disposed towards training), the scale of the difference suggest that EIF and GIF have been partially effective in involving employers in design of skills products and services.

However, the qualitative case studies found considerable variation in the extent to which Delivery Partners involved employers in project design and development. Success at engaging firms as beneficiaries, combined with quality of employer feedback was **strongly linked to broader Delivery Partner project management capability.**

Active engagement of a core group of employers in the early stages of the programme was critical in confirming initial employer appetite and, in shaping and verifying that the scope of the product / solution was appropriate. As projects were developed, testing them with a larger group of employers helped to ensure the quality of the product / service was adequate and provided the flexibility to make adjustments to address emerging or nuanced employer requirements. Across different activities, a common theme was the desire from employer beneficiaries for more consultation about products being developed at the outset but also on *an on-going basis* to ensure that projects continue to evolve and improve and be relevant to employer needs. This is **different to continuing involvement in a project management capacity which many did not want**, and is an important lesson for the design of future skills infrastructure projects.

Development of innovative skills solutions

Another specific aim of EIF and GIF was to encourage the development of innovative, demand-led skills infrastructure solutions. Among the case study Delivery Partners, the majority of the projects displayed features of contextual (i.e. applying practice in other areas) and adaptive innovations (i.e. taking an existing product but adapting by introducing new ways of working). Very few projects exemplified transformative innovation (i.e. a fundamentally different product or delivery model).

However, project performance data did not reveal a link between the level of innovation and the performance of a project in terms of employer engagement. Rather there was support from employers for using well-established approaches and applying them to a new sector, geography or occupation suggesting that projects with credible histories may be more commercially viable. In the eyes of employers, perceived service quality and process innovation was an important dimension

to their engagement and satisfaction, and in practice this sometimes overlapped with perceptions of product / service innovation.

It was not possible to make a judgement on whether the training provided was any more effective than training already available in the market place. This was because projects were typically offering skills solutions that did not previously exist in a particular sector, for a particular occupation or a geography suggesting that EIF and GIF projects had in some cases filled a gap in the market.

Sustainability of EIF and GIF funded projects

Project sustainability for EIF and GIF skills solutions was intended to be achieved either via a transactional model of continuing 'sales' of a product or service or wider behaviour change among employers to increase their internal or external skills investments. Not all projects were expected to make the transition to sustainability without funding; some projects were intended as a series of experimental pilots without expectation that all would be sustained.

Across the nine case study Delivery Partners, 14 projects were discontinued by the end of the evaluation with a further 14 being sustained through mixed public and private funding including employer investment and purchase of products and services.

The case study evidence suggests that standards and qualifications products were more likely to be sustained once they had gained initial employer commitment, because the process created a market requiring ongoing certification of individual competence. Employer Brokerage projects were more likely to be discontinued due to decreasing labour market demand for the roles these projects supplied and availability of alternative recruitment sources.

Projects established as commercial services from the outset were more likely to be sustained. There was some evidence of persistent market failure of skills diagnostic solutions for SMEs, who were prompted to, for example, recruit apprentices as a result, but were unwilling to pay for advice on skills needs. This service would need careful packaging to be commercially viable and there remains a role for intermediaries in selling the benefits of skills investment to SMEs.

Employers were more willing to pay for direct training costs than training infrastructure costs such as course development, running networks or brokerage services. Willingness to co-invest in EIF and GIF activities was strongly driven by perception of value for money which was judged on the basis of immediate and/or tangible effects such as the content or quality of the training and the calibre of new staff joining as a result of EIF and GIF. Employers also took into account in-kind investments in their calculations, so that willingness to co-invest was lower when employer beneficiaries perceived themselves to have high in-kind costs.

Conclusions

EIF and GIF sought to achieve sustained change in how employers engage with, and invest, in skills in order to raise skills levels, improve access to and deployment of skills, and raise business performance. The programmes sought to address market failures identified in research and encourage employers to take more direct responsibility over training provision by investing in projects that were demand-led and innovative with significant co-investment from employers.

It was anticipated that the effect of EIF and GIF would be measurable within the timeframe of the evaluation (one to two years after engagement) in terms of an impact on training volume and expenditure. Business performance outcomes such as an increase in productivity and profitability were anticipated *after* the initial impacts on training behaviour and it was likely that these impacts would only be visible beyond year two of the evaluation.

The evaluation found limited evidence of an impact on employer investment in skills. Whilst EIF and GIF activities have halted a decline in the *number of employees* receiving training, there was no corresponding impact on the *amount of training* received by employees or the *amount spent by employers* on training. Rather, employer beneficiaries have sustained their training activity partly by using more cost effective means which some were doing independently of EIF and GIF. The evidence also showed that employer beneficiaries already had higher than average pre-disposition towards training meaning that the impact detected may well be conflated.

Furthermore, the evidence suggests that it is challenging for programmes like EIF and GIF to have an impact on training expenditure and volume within this timeframe. This is because employers' decisions to invest in training *beyond* meeting their 'core' requirements are primarily driven by other factors such as business performance and availability of funds. Indeed, employers engaged in EIF and GIF had no specific intention for EIF and GIF engagement to have a more immediate impact on business performance, recognising that the issues they were intending to address through training (such as improving organisational readiness to address future technological changes and increases in global competition) were also affected by many other external factors. The implications for design and evaluation of similar programmes are two-fold:

- A much longer timeframe should be considered for evaluation in relation to any skills infrastructure projects given that training impacts may take up to seven years to materialise.

- A longer timeframe for weaning employers off public funding. EIF and GIF projects ran for two years but a number of experts observed that this may not be long enough to achieve behavioural change in sectors or sub-groups of employers which are used to government taking responsibility for training supply.

More broadly, findings from this evaluation suggest the following lessons:

- Projects that are innovative can be more difficult to commercialise and be sustainable. Very few EIF and GIF activities exemplified transformative innovation (i.e. a fundamentally different product or delivery model) but this was *not* an important factor in meeting employer demand and delivering solutions that were commercially sustainable. There were examples of projects that were not especially innovative filling a gap in the market, as well as evidence of employer support for projects that applied well-established approaches to new context.

- Active employer engagement is key to project sustainability. This includes active involvement in the early stages of project design and implementation *and* on-going involvement to ensure products and services remained relevant to employer needs. On-going involvement by employers in this capacity (as opposed to a project management role) was rare in EIF and GIF.

- Employer engagement in design and implementation is not sufficient to deliver sustainable solutions in some instances. This is because employers are more willing to pay for direct training costs than training infrastructure costs such as course development, running networks or brokerage services. SMEs are also less willing to pay for advice on skills needs despite the benefit of these services to them. These services require careful packaging to be commercially

viable and there remains a role for some public funding for intermediaries in selling the benefits of skills investment to SMEs.

1 Introduction

This report presents findings from an impact evaluation of the Employer Investment Fund (EIF) and the Growth and Innovation Fund (GIF). The evaluation comprised the following strands:

- An impact analysis using two waves of longitudinal survey with c.900 employers who have engaged in EIF and GIF activities (from hereon, employer beneficiaries) and a matched comparison sample of c.900 non-participant employers (from hereon, the comparison group); and

- Qualitative case studies comprising high level consultations with key national stakeholders and more detailed case study research with nine Delivery Partners to investigate the full range of activities developed and delivered by them. Interviews were also conducted with 56 employer beneficiaries at the baseline stage in summer 2014 and 52 employer beneficiaries at the follow-up stage in summer 2015 across six types of activities:

    - Employment Brokerage;
    - Apprenticeship Brokerage;
    - Skills Diagnostics;
    - Training Brokerage;
    - Group Training Activities; and
    - Networks.

The purpose of this report is to provide evidence of impact of the investment programmes on employer beneficiaries, to inform policy development activity for the UK Commission for Employment and Skills (UKCES).

1.1 Policy background and aims of the EIF and GIF

In 2011 the UK Commission for Employment and Skills launched phase one of EIF, the first of its contestable challenge funds. Open to Sector Skills Councils (SSCs) to develop employer-led projects throughout the UK, EIF phase one marked a transition away from a core funding model for SSCs, encouraging them to move to an investment and outcome-focused approach. Two further phases of EIF followed along with a new fund, GIF. GIF opened out co-investment to any legally constituted employer representative body in order to encourage employers to work together collectively and provide leadership in developing innovative, sustainable skills infrastructure solutions in England.

The UKCES investment programmes were developed in response to growing evidence that UK skills policy had not always met the needs of employers, and that level of investment in skills development was insufficient to drive business and economic growth. Evidence suggested that whilst there are world class, high performing businesses across the UK, other symptoms related to the supply and demand for skills were holding back investment in skills. The Collective Measures programme of research (Cox et al., 2009; Stanfield et al., 2009) identified a number of common barriers or market failures to achieving optimal investment in training. These included:

- Market failures which inhibit employer investment in skills contributing to mismatches between skills supply and skills sought by employers;
- Some duplication of investment in the public and private markets for learning provision; *and*
- Skills products which have in the past been driven by supply rather than demand.

The research also included an examination of the levers that might help to increase investment in skills and the different contexts in which levers for investment could be effective (Collective Measures). This amplified the belief in the untapped potential for employers, especially employer networks, to take a greater role in the development of skills solutions. The research recommended the introduction of a fund where employer networks could bid for finance to co-invest in skills projects relevant to real demand and employer need.

EIF and GIF

The EIF and GIF investment programmes were developed to stimulate a step change in employer leadership and investment in economically valuable skills through co-investment between employers and the UK Commission. Ultimately, the goal was to boost economic growth and productivity in the UK through increased investment in skills. EIF and GIF sought to achieve sustained change in how employers engage with, and invest in, skills in order to raise skills levels, improve access to and deployment of skills, and raise business performance.

The funding was limited to skills and employment infrastructure, with no participation funding available (i.e. direct funding for the training of specific employees or individuals). Both programmes were time-limited investments, and designed to pump-prime the building of infrastructure that would develop solutions to address needs in a specific area or sector. The programmes invited applicants to submit proposals; they were non-prescriptive and gave no preference to the nature of problems or solutions they sought to invest in. The programmes sought and assessed project bids that were to be demand-led, innovative, with significant co-investment from employers. The overarching aim of the programmes was to provide employers with the opportunity to take the lead in articulating their needs and steering the development of the solutions they needed, and bring about sustainable change in their industry or sector.

Excluding both EIF round 1 and GIF development projects, for reasons of their developmental nature, UKCES had contracted £106 million in pump-prime funding to 120 successful investment proposals, leveraging a further £151 million in matched contributions from employers (in-kind or cash). This is presented in Table 1 on the following page.

Table 1 - Funds allocated through EIF and GIF

Fund	Round	Dates	Projects	Resources
EIF	2	April 2012 to March 2014	68	£62,984,272
	3	Oct 2012 to March 2013	10	£4,174,518
GIF	1	Sept 2011 to October 2013	14	£8,771,282
	2	April 2012 to May 2014	5	£2,747,236
	3	Oct 2012 to March 2015	13	£16,309,002
	4	January 2013 to July 2015	10	£11,056,016
Total			**120**	**£106,042,326**

Source: UKCES Monitoring Information, 2015

Ipsos MORI's initial review of the EIF and GIF programmes (as part of a 2013 feasibility study for a programme level beneficiary survey[5]) showed a diverse set of activities had received investment funding, using a variety of delivery mechanisms.

This evaluation has focused solely on projects that benefitted employers, as recommended in the feasibility study. This was to ensure that relevant outcomes and impacts could be more clearly identified and attributed to each intervention. The activities that were in-scope included:

- **Skills Diagnostics**: projects involving direct and indirect engagement with employers, in order to identify and define their skills and training needs, as a means of encouraging them to implement training solutions.
- **Training Brokerage**: services provided to employers and training providers to help employers locate providers of appropriate workforce development or training services.
- **Employment Brokerage**: projects focusing on the brokerage of unemployed individuals into specific vacancies.
- **Apprenticeship Brokerage**: projects facilitating the brokerage of apprenticeship places; simplifying the process by which employers find appropriate individuals to fill those apprenticeship places and sometimes providing administrative support for paying apprentice wages.
- **Group training activities (GTAs)**: the delivery of training via groups of employers, such as collective procurement through networks or Group Training Associations to help pool the risks associated.
- **Networks**: projects focusing on the establishment of employer networks to improve engagement with training providers, to act as a collective voice to articulate industry skills needs and, in some cases, to provide a vehicle for collective procurement of training.

[5] Ipsos MORI (2013), UKCES Investments Beneficiary Survey: Feasibility Study

The role of stakeholders

A number of key stakeholders were involved in the set up and delivery of the programme:

- **UKCES**: had overall responsibility for running the application process and selecting projects for funding. UKCES also managed the investment processes and commissioned the programme evaluation.
- **Delivery Partners**: bidders for funding and had responsibility for delivering projects, either through using their own staff or other intermediaries, training providers or stakeholders. Applications to EIF were restricted solely to Sector Skills Councils (SSCs). GIF was restricted solely to England and was open to any industry level body.
- **Other intermediaries and stakeholders**: helped to deliver aspects of projects in partnership with the Delivery Partners. They also provided expert insight and support through representation on project boards and working groups.
- **Training providers**: worked collaboratively with Delivery Partners and employers to establish infrastructure, including new courses, accreditation or certification. The training providers were also signposted for employers to purchase training by Delivery Partners and other intermediaries.
- **Employers**: contributed to the development of EIF and GIF products and services, through design and application processes, market testing and product development, and project management and governance. Employers were beneficiaries of the programme, and made use of the skills solutions delivered. The nature of their involvement in developing, testing or project management varied between project types and Delivery Partners.

1.2 Impact evaluation

The overall aims of the evaluation were:

- To learn lessons about the delivery of the two investment funds, in order to enable improvements to the process for UKCES and the investees in building sustainable skills solutions; *and*
- To provide an assessment of the impact of the funded projects on skills investment and business activity.

These two key aims were further supplemented by four specific objectives:

- To develop an understanding of whether the investment projects were encouraging employers to adopt innovative training infrastructure solutions that more effectively met their skills needs;
- To understand the extent to which employers directly engaged with investment projects, increased their investment in workforce skills and increased their performance over and above what they might have done anyway;
- To assess whether investment projects were sustainable and embedded over the longer term; *and*

- To inform gaps in UKCES's evidence on outcomes and impact within the logic chain (see section 1.3).

Impact analysis

Longitudinal surveys were conducted with employer beneficiaries and a matched comparison group of similar employers. The comparison group was sampled from participants in the 2013 Employer Skills Survey; they were selected to be similar to the employer beneficiary sample in terms of their size, industry sector and engagement in training. Surveys were undertaken with both groups in summer 2014 (the baseline) and again a year later (the follow-up) to measure the changes over time that could be specifically attributed to participation in EIF and GIF activities.

A Difference in Differences (DiD) statistical method was used to evaluate the impact of EIF and GIF. DiD works by comparing a before / after estimate for employer beneficiaries against before / after estimates for comparison employers. The difference is the impact of EIF and GIF for a specific outcome. This methodology is popular because it takes into account the fact that participants and controls may have different starting points and that both groups may experience some change over time, regardless of the programme intervention. It does this by making the assumption that, in the absence of any programme intervention, the participants and controls would have experienced the same amount of change over time. However, if this assumption is violated then the results are unreliable.

This assumption is more likely to hold if participants and controls are as similar as possible. The comparison group were therefore selected to reflect the beneficiaries on size, industry sector and delivery in training. Propensity score matching was used to reduce any remaining differences by modelling the characteristics of the two groups and generating a set of matching weights for analysis. Table 2 on the following page presents some of the characteristics for both groups after the propensity score matching.

Qualitative evidence

The qualitative evidence presented in this report is drawn from analysis of project documentation (including application forms), interviews with national stakeholders and individuals representing nine Delivery Partners, and interviews with employer beneficiaries. Specifically, the following interviews were undertaken:

- Interviews with strategic and operational staff at nine Delivery Partners at both baseline and follow-up phase, to investigate the full range of activities developed and delivered by them. The nine Delivery Partners were: Cogent, Cornwall Marine Network, Creative Skillset, EU Skills, People First, SEMTA, Skills for Logistics, Black Country Consortium and Lantra.

- High level consultations with key national stakeholders. At the baseline this included UKCES strategic staff, the Devolved Administrations and Skills Funding Agency. At the follow-up phase, interviews were conducted with UKCES fund managers for EIF and GIF.

Table 2 - Profile of employer beneficiaries and comparison group after propensity score matching

	Weighted beneficiaries	Weighted comparison
Industry sector		
Agriculture, mining, utility supplies	2%	2%
Manufacturing	38%	37%
Construction	5%	4%
Wholesale/retail, transport/storage	7%	6%
Accommodation, food service	1%	2%
Information, communication	12%	13%
Financial, real estate	2%	3%
Professional, scientific, technical	7%	7%
Admin, support service	3%	3%
Public admin, defence, education	7%	9%
Human health, social work	5%	5%
Art, entertainment, recreation	8%	8%
Other service activities	2%	2%
Site		
Branch	17%	18%
Headquarter	22%	21%
Single site organisation	61%	61%
Number of employees at the site		
1	5%	4%
2-4	13%	13%
5-9	15%	16%
10-24	22%	21%
25-49	14%	12%
50-99	12%	14%
100-249	11%	10%
250+	8%	9%
Number of employees in UK as a whole		
<10	3%	2%
10-49	7%	7%
50-249	13%	14%
250-999	6%	6%
1,000+	10%	10%
Single site	61%	61%
Type of organisation		
Mainly seeking to make a profit	81%	75%
Charity or voluntary sector	13%	18%
Local government financed body	3%	3%
Central government financed body	3%	4%
Off the job training funded	80%	80%
On the job training funded	80%	70%
Has a training plan in place	50%	50%

- Interviews with 56 employer beneficiaries at the baseline and 52 employer beneficiaries at the follow-up phase across seven types of activities. Employers were purposively selected to include: SMEs and large businesses, and seven broad activities: Skills Diagnostics; Training Brokerage; Employment Brokerage; Apprenticeship Brokerage; Group training activities; and Networks. The follow-up phase also included ten longitudinal interviews with employers.

Further details on the evaluation design can be found in the Technical Appendix.

1.3 Programme logic chain

A logic chain for the programme (based on parallel work previously undertaken examining the feasibility of a programme-level beneficiaries survey of EIF and GIF) is set out in Figure 1. This provides an overview of the anticipated chain of causality between inputs, activities, outputs, outcomes and impacts of EIF and GIF. The logic chain also outlines the mechanisms by which change was expected (highlighted in circles).

The EIF and GIF programmes were expected to achieve impact through the following outcomes:

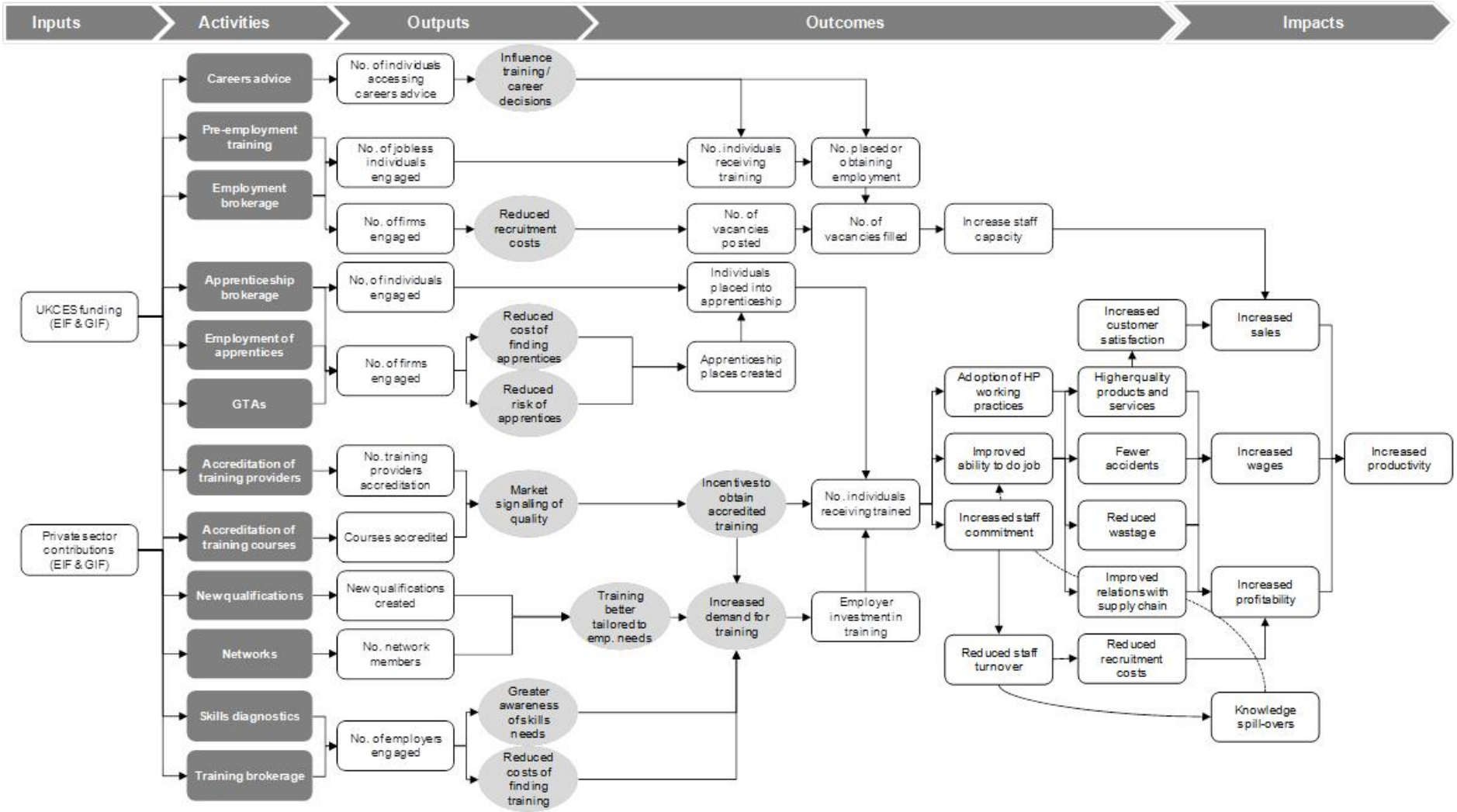
- **Training demand:** A key objective of the projects was to induce greater investment in training by employers (either directly or indirectly). This evaluation set out to measure the increase in training provided by firms engaged by the EIF and GIF programmes.

- **Business outcomes:** It was expected that increases in training investments would have benefitted businesses in terms of human resource outcomes. For example, greater investment in training would improve staff retention and staff proficiency, and therefore reduce overall recruitment costs.

- **Productivity gains:** The primary anticipated economic effect of the EIF and GIF programmes was to raise the productive capacity of workers through their acquisition of new skills. Any effects in these areas would be reflected in enhanced GVA per worker within those firms benefiting directly or indirectly from the training infrastructure developed (driven either by enhanced efficiency or quality). The benefits of greater productivity would accrue to both employees in the form of higher wages (measuring this impact was *not* within the scope of the evaluation), and to employers in the form of higher profits.

It was anticipated that the effect of EIF and GIF would be measurable within the timeframe of the evaluation (one to two years after engagement) in terms of an impact on training volume and expenditure. Business outcomes and productivity gains were anticipated *after* the initial impacts on training behaviour and it was likely that these impacts would only be visible beyond year two of the evaluation.

Figure 1 - Logic Model: EIF and GIF programmes



1.4 Scope

The following points of scope, and the limitations associated with these, should be borne in mind in the review of this impact evaluation:

- **Intangible benefits**: The assessment of likely benefits is driven primarily by the volume of training outcomes anticipated by investments. However, many investments may lead to intangible benefits that have not been captured through this assessment (this may include greater confidence in the skills system amongst employers) which may ultimately lead onto tangible benefits (such as greater levels of inward investment). However, due to the lack of evidence, any assessment would be purely speculative and has been excluded from this study.

- **Quality of training**: This evaluation primarily focuses on volume effects (increases in the quantity of training demanded). Many EIF and GIF projects may have the effect of enhancing the quality of training provided. To the extent that this is reflected in an increase in demand for training, these effects are captured. However, there may be additional benefits for those employers moving from lower to higher quality provision. These types of effect are substantially more challenging to quantify and have been excluded from this assessment.

- **Recall**: Employer recall of EIF and GIF activities was poor with just 35 per cent of the beneficiary sample recalled engaging with the activity, Delivery Partner and/or provider at the baseline stage. This was mainly caused by poor and inconsistent recording of activity information (including brand names) by Delivery Partners, though it is also possible that some employers genuinely did not recall the activity due to the indirect nature of the engagement (for example, use of online diagnostic toolkits). This means that the beneficiary sample may underrepresent those with more light-touch interactions.

- **Isolating impact**: Ideally the impact analysis should control for any characteristics that affect participation in EIF and GIF and the outcome of interest. However, this can never be the case using quasi-experimental methods; the model can only control for observable characteristics (i.e. those recorded in the questionnaire or sampling frame). There may be other factors at play which influence the outcomes but cannot be controlled for; for example, beneficiaries reported that the issues they were intending to address were likely to be affected by many other factors external to EIF and GIF in the short term.

1.5 Structure of this report

The structure of this report is as follows:

- **Chapter 2** summarises the role of **Delivery Partners** in the set up and delivery of the investment programmes.

- **Chapter 3** sets out the evidence of the **impacts of EIF and GIF** on employer beneficiaries. It draws on findings from the baseline and follow-up surveys, and explains the reasons behind these, using evidence from the qualitative interviews with employers.

- **Chapter 4** considers the extent to which projects had been progressed after funding was ceased. The chapter draws out lessons on **sustainability** for future policy making.

- **Chapter 5** sets out the **conclusions and recommendations.**

2 Delivery Partner roles

This chapter summarises the role of Delivery Partners in, set-up; implementation and delivery; in order to set the context for judging the impact and effectiveness of the different models of delivery. The evidence is drawn from analysis of project documentation (including application forms), interviews with individuals representing nine Delivery Partners, and interviews with employer beneficiaries. Specifically, this chapter covers:

- The reasons Delivery Partners engaged in EIF and GIF;
- The ways the projects were designed and developed and the role of employers;
- The types of skills solutions that were developed and the extent to which they were innovative; *and*
- The ways in which the projects were delivered and the potential lessons.

2.1 Reasons for engaging with EIF and GIF

Delivery Partners' main motivation for bidding for EIF and GIF funding was to address market failures which inhibited employer investment in skills, such as imperfect information about relative quality and benefits of training, access to suitable provision, transaction costs in organising training, lack of economies of scale and releasing staff to train. Some Delivery Partners used the opportunity to develop new products and services whilst others used the funds to bring to market products and services which were already in development, or to support products already on the market such as developing Apprenticeship Training Agencies to support small and medium-sized enterprises (SMEs). Some Delivery Partners used the funds to help transition away from government grants but in the main this was a secondary motive.

Delivery Partners were at different starting points in their understanding of the market failures they were attempting to address, so there was variability in the distance they had to travel to get their products and services market-ready. Those attempting to address a long-term problem were able to benefit from prior learning whilst those confronting newly identified problems had further to travel. Delivery Partners with less proximity to particular market failures needed to build partnerships, foster employer collaboration and work to overcome lower levels of employer commitment alongside identifying a clear solution to the problem. Building private sector markets takes time and experimentation and is usually driven by a resolute focus on what customers will buy, so for some Delivery Partners this was a much greater challenge.

2.2 Project design and development

Key features of successful projects

Analysis of application forms, discussions with Delivery Partners and employer interviews revealed that two key features of project development positively influenced employer engagement and were clearly associated with more beneficial perceived outcomes:

- A clear rationale of the problem that the project was addressing which resonated with employers was critical to ensure the solution was demand-led. However, there was variation in how far Delivery Partners justified the product / service developed and whether alternatives were considered.

    - For example, employer feedback showed that the bespoke employer research conducted by three Delivery Partners specifically for EIF and GIF applications had been used to tailor skills solutions to the different challenges the SMEs face. In the case of Apprenticeship Brokerage, this encompassed lack of employer understanding of apprenticeship frameworks, employer uncertainty about recruitment processes, concerns about making a commitment to employment, administration costs and training quality.

- A narrow set of initial objectives and a single product or service rather than multiple ones. These projects were more successful because they provided a clear concise rationale that met employers' needs so they were more likely to engage.

    - For example, employment or apprenticeship brokerage services were easier for employers to identify the product being offered. Where solutions involved many disparate strands such as self-assessment tools, professional qualification pathways and various types of recruitment, employers had more work to do to work out which elements were right for them and a number disengaged as a result. Branding and message were perceived as less tangible, and provided less of a 'hook' to attract employers.

Projects designed with less clear goals and narrative about the problems they were addressing and intended benefits were more difficult to promote and received lower take-up among employers. This reflected some projects which were part of a wider portfolio designed to address more complex issues, and was particularly evident among activities such as Networks, standards and qualifications, and HR toolkits and consultancy services. For example, project strands intended to engage employers in mapping career development pathways were less able to articulate a rationale which appealed to employers. This was because solutions like High Performance Working involve businesses making multiple different changes to improve organisational performance so explaining the offer is less clear as HPW offers general benefits rather than narrow solutions to immediate problems. In the case of mapping career pathways, the benefits accrued to employees rather than organisations as a whole and were therefore of less interest to organisations. This challenge was further confounded in sectors with limited employer ambition to improve people management practices.

Projects which combined multiple activities within one project to tackle combined sectoral challenges were typically less clear in their articulation of the objectives, nature of demand and why the solution was appropriate. Those projects focussed on more general improvement of sectoral performance or which did not *directly* appeal to employers, generally experienced less positive outcomes. These types of interventions were also difficult to package easily as a 'product'. They required a much greater commitment to change from employers, a more holistic approach to design and implementation, and more intensive external support. Only some strands of the projects, if any at all, were positively received by employers. However, one example of a successful solution linked professional standards to skills diagnostics and training brokerage with a tightly-defined target market.

Project design

As part of the application process, Delivery Partners undertook substantial preparatory work in determining employer demand for products and services and, in some cases, into funding options to support future sustainability. These activities tried to develop services aimed at meeting the

breadth and depth of employer demand and to help Delivery Partners position themselves as an independent and impartial broker.

Analysis of application forms and discussion with Delivery Partners showed variation in how far they justified the precise intervention and whether alternatives were considered. Delivery Partners that had conducted bespoke employer research specifically for EIF and GIF applications were more successful in designing solutions that were fit-for-purpose and also in identifying potential barriers (and solutions) to employer engagement. For example, research undertaken by Delivery Partners to inform the development of Apprenticeship Brokerage services revealed the range of challenges that SMEs faced in using these services, such as a lack of understanding of apprenticeship frameworks, uncertainty about recruitment processes, concerns about commitment to employment, administration costs and training quality. This led the Delivery Partner to develop Skills Diagnostic services in parallel with Apprenticeship Brokerage to address these barriers.

Some Delivery Partners also used market research to test a range of solutions to identify the most optimal model.

Other Delivery Partners relied on Sector Skills Assessment reports produced by SSCs to understand the rationale for action, sometimes supplemented by their own employer surveys and data from other national sources. This was helpful background data which demonstrated broad sectoral problems but was less successful than bespoke research in identifying specific solutions.

Employer roles and engagement

EIF and GIF projects were intended to be employer-led and there was evidence that EIF and GIF had been successful in this respect: 44 per cent of beneficiaries surveyed were involved with the design or set-up of an activity. The national benchmark for this is 14 per cent[6], and whilst this is not directly comparable due to differences in employer profile, the magnitude of the difference suggests that employer involvement in project design and set-up have been significant, especially given that this was a new way of engaging employers for many SSCs.

Delivery Partners engaged employers at four different points:

- Prior to making funding applications to test ideas;
- During project design to identify and resolve possible barriers to employer engagement;
- Project management; *and*
- Project governance.

Prior to making applications Delivery Partners typically consulted employers represented on their boards, whilst surveys were more commonly used during product development to test and refine the design of products and services. Some Delivery Partners involved employers much more heavily in project design and development than others, but this was not consistently associated with better employer feedback and engagement at a later stage. This was because Delivery Partners which knew their target customers well were able to design and deliver effective projects with lower levels of initial employer involvement.

[6] 2014 Employer Perspectives Survey (EPS) asks a nationally representative sample of employers whether they had “discussed or been involved in the design of new qualifications and training opportunities”.

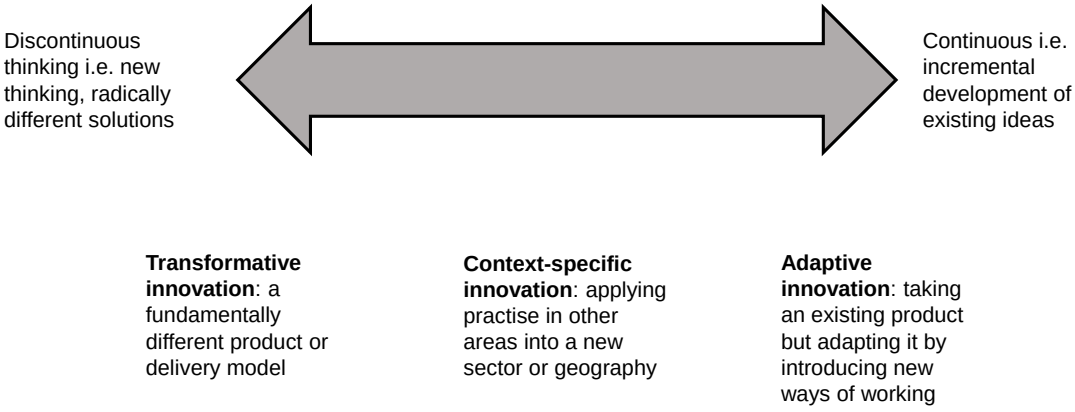
To engage employers in project management and governance, Delivery Partners typically used employers who were already involved in Delivery Partner governance, for example on an employer board. A minority of Delivery Partners established working groups or steering groups for project management of individual projects. These were typically more challenging for Delivery Partners to coordinate because they involved an extra layer of governance and included employers and stakeholders who were less familiar with the Delivery Partners and the project aims and objectives.

Development of innovative skills solutions

One of the specific aims of EIF and GIF was to encourage the development of innovative, demand-led skills infrastructure solutions. Innovative solutions are intended to be of higher quality than existing market provision but the impact may take time to develop. This is because solutions which are more innovative are likely to face more challenges and, in some cases, they may also be less likely to achieve an impact.

The type of project innovation can be assessed on a scale, using adaptive, context specific and transformative categories (Cook et al., 2012). Context-specific or adaptive innovation might include differences in approach, access points for employers, flexibility in the design and delivery creating a higher quality service which is fit for the problem being tackled.

Figure 2 - Types of innovation



Source: Adapted from Cook et al. (2012)

Interviews with case study Delivery Partners and analysis of application forms showed that most projects displayed features of contextual and adaptive innovations. This included, but was not limited to, new geographies (e.g. national rather than local), expansion into new sectoral segments, use of virtual means of engaging employers and direct employer engagement or collaboration. Very few projects exemplified transformative innovation and this was because this type of skills project is relatively uncommon so there were fewer exemplary projects to look to for inspiration. Research evidence on innovation suggests that the advantage of context and adaptive innovation are that the solutions may be more easily recognised and quicker to develop and get to market. However, it may be more challenging to identify impacts for adaptive innovation because this may involve fine tuning an existing product, and would depend on whether the employer had prior experience of the service or product and recognised an improvement.

Project performance data suggested that performance did not depend on projects being highly innovative. Employers pointed to the importance of adaptive and context innovation to adjust products and services to meet their needs and preferences, for example taking well-established

approaches to Apprenticeship and Employment Brokerage and applying them to a new sector, geography or occupation.

A further consideration was whether the training provided was any more effective than training already available in the market place. In practice, the projects were typically offering skills solutions that did not previously exist in a particular sector, for a particular occupation or a geography which limited the availability of comparisons for employers.

Interviews with Delivery Partners showed that innovation was located in the 'wiring' of projects (i.e. background research, associated training quality, recruitment process). Employers were usually not in a position to be able to judge the innovation of EIF and GIF skills solutions, partly because the innovation was designed not to be visible to employers and those with the clearest views focused on appraisal of the 'output', such as the calibre of an apprentice or new recruit.

2.3 Project delivery and lessons learned

A key feature of the design of the EIF and GIF programme was the role of intermediary organisations responsible for managing and delivering the investments. For the EIF programme, intermediary bodies were defined as Sector Skills Councils (SSCs) and the project had a potentially UK wide scope. The GIF programme was open to any employer-led legal entity or employer representative body in England and therefore a broader range of intermediary organisations were eligible to apply and subsequently received funding. This section discusses the role of intermediaries (i.e. Delivery Partners) in project delivery and the potential lessons for future delivery of these types of skills projects.

Working with additional delivery agents

EIF and GIF presented Delivery Partners with the opportunity to work with a wide range of delivery agents who either helped broker relationships between beneficiary employers and EIF and GIF services or delivered the products or services directly. These included:

- Further Education (FE) colleges;
- Higher Education Institutions;
- Local Enterprise Partnerships (LEPs);
- Private training providers;
- Local authorities;
- Business representative organisations; *and*
- Professional bodies.

Delivery Partners and national stakeholder interviews showed that projects with multiple delivery agents were more challenging to deliver. They were also often resource-intensive for the Delivery Partner which had to bear all the costs and risks associated with delivery.

Delivery Partners who were using a combination of their own staff and staff in other stakeholder organisations to deliver their project tended to experience more variable outputs and outcomes. The effectiveness of this arrangement depended on successful alignment of partner organisations with project objectives. For example, where DPs were able to work with partners bringing complementary expertise and for whom EIF and GIF project objectives were central to delivery agents' business strategies, the agents were more engaged and committed.

Project performance was affected substantially in some cases by the performance of delivery agents such as learning providers and local trade bodies, especially where these partnerships were new. Challenges included:

- Perceived competition between the solution proposed by the project and the partner's existing products, such as struggling to encourage partners to promote an Apprenticeship Training Agency (ATA) to their clients when they were focused on selling other interventions unconnected to EIF and GIF funding;
- Difficulty in aligning national and regional priorities of partners with employer interests, for example, Delivery Partners found some variation in interest levels in their sectors depending on priorities among local offices of national partners;
- Difficulty in aligning interests of FE colleges and employers, for example, trying to marry employers' desire for flexibility with numbers and enrolment dates with FE colleges need to meet Skills Funding Agency stipulations and work to an academic timetable; *and*
- Lack of alignment between partner objectives and project objectives, for example, where partners were seeking to deliver products or services using a different business model.

Delivery Partners overcame these challenges by working more selectively with those delivery agents that were co-operative and, in some cases, by ending relationships that were not mutually fruitful.

Some Delivery Partners encountered difficulties in working with national delivery agents to offer services at a regional or local level stemmed from the added complexity of trying to deliver multiple products and services, and the Delivery Partners' and their partners' capabilities in managing the relationships. Other Delivery Partners were starting to explore possibilities for sustaining projects through working with new partners at local levels such as LEPs. Two were exploring setting up Memoranda of Understanding to collaborate on legacy activity from EIF and GIF projects and potentially to co-resource projects when funding ceased.

Anticipating and managing project risks

Skills infrastructure interventions which are untried in new contexts typically carry some risks and opportunities to learn and innovate during the lifetime of the project. Delivery Partners anticipated most risks at the application stage of projects and the main challenges stemmed from under-estimating known risks rather than encountering new ones.

The types of risks that were identified were broadly similar across Delivery Partners and reflected the market failures both funds were set up to address. Few additional risks emerged across project lifetimes, with the most common being:

- Lack of employer engagement, for example, smaller companies not wishing to commit to purchasing products / services, employer fears about working with competitors, Delivery Partners being unable to gain access to employers, and employers not making use of resources even if initially indicating interest;
- Lack of resource to sustain the product or service if employers were unwilling to pay, for example, where SMEs in particular would not fund the product, there was not enough income to sustain the intervention and DPs were sometimes unable to source funds from other sources;
- Adverse change in policy context or employer demand for skills prompted by an increasingly competitive marketplace for competing products, re-focusing of government policy priorities, and fewer vacancies in occupations/sectors targeted by Employer Brokerage projects;

- Over-ambitious targets coupled with insufficient delivery staff, where vision and project scope were unrealistic and/or where there were too few delivery staff or staff lacked the necessary experience to deliver a project of the specified nature and scope; *and*
- Lack of fit between proposed solution and employer need, where projects had not been based on direct research with employers and so were not designed to meet sector- or employer-relevant needs, but also where employers could not deliver required in-kind contributions to develop the service or product.

The main ways of anticipating and mitigating these risks were:

- Careful research to ensure products would appeal to employers (i.e. market research);
- Testing to assess employer appetite and willingness to pay;
- Assessing return on investment;
- Effective promotion of the product/service by capitalising on existing partnership working, marketing and communication as well as use of business champions and employer ambassadors;
- Monitoring risks and changing policy landscape, in combination with greater employer ownership and governance;
- Responsiveness to employer queries, requests for information and support; *and*
- Evidence-based scoping work to ensure that targets and project outlines were realistic and achievable.

While most projects ran to time, some common sources of delays were:

- Problems with IT infrastructure and platforms, either around developing new software, web applications or portals, or unanticipated additional costs needed to get platforms up and running;
- Underestimation of the extent and nature of resource required to engage employers, especially SMEs, in particular the need for face-to-face and/or in-depth, lengthy engagement was necessary;
- Managing relationships with delivery agents, as Delivery Partners sometimes lacked influence over how and when decisions affecting projects were taken;

> *One of the things that we learnt was, we probably should have been more willing to end the relationship with some of the partners sooner* [Delivery Partner]

- The need to align project timings with the academic calendar when setting up projects involving young people in schools or studying at universities. When Apprenticeship Brokerage and Employment Brokerage projects were misaligned with study timetables, this fostered weak links with HEIs, made it hard to access students and resulted in high-calibre candidates already securing other opportunities. For example, one Delivery Partner explained that once they had identified that there would be a large volume of school leavers available to start apprenticeships at a particular time of year, they could plan project delivery around this.

Lessons learned during projects

During the course of the projects, Delivery Partners commonly had to make adjustments to projects as they identified what worked or did not work. Common issues to deal with were lower take-up by employers, and changes made to products or services following employer feedback on issues such as frequency of contact with Delivery Partner. The most common response to lower than anticipated take-up was to intensify employer engagement activity which required innovation through trying out different engagement techniques. Delivery Partners sought new ways of doing

this, allowed more time and/or increased resources for marketing. For example, one Delivery Partner adapted its SME engagement strategy to align it more closely with SME concerns and piggybacked on existing events aimed at broader industry issues rather than skills themes, while another provided more opportunities for employer input at the project governance level. As such, wider networking was an important tool to gain employer buy-in.

Changes to projects were also made in response to employer feedback on how services could be improved to more closely align with employer demand. One Delivery Partner introduced new ways of communicating with employers and changed staff responsibilities while another improved an IT interface, strengthened links between networks of employers to help build sustainability, and developed a greater regional presence to attract SMEs.

2.4 Conclusions

This chapter has shown a substantial role for Delivery Partners to play as intermediary organisations in developing skills infrastructure solutions. They served an important role as a co-ordinating function through harnessing employer ideas to develop products and services that met market needs and employer demand and in managing the projects subsequently developed. A key role was creating infrastructure to overcome barriers to investment in skills for SMEs, especially through Skills Diagnostics, Apprenticeship and Employment Brokerage services. The programmes also provided opportunities for some Delivery Partners to engage with new partners.

Success at engaging firms as beneficiaries, combined with quality of employer feedback was strongly linked to Delivery Partner capability. The most fundamental element of this was in developing and selecting projects to appeal to employers and was therefore genuinely demand-led. This is one of the most important success criteria for the whole programme evaluation, but it has implications for sustainability of impact through wider behavioural change among some types of firms. Firms reluctant to engage with products or services which may benefit a sector but are not perceived as filling an immediate need or solving an immediate problem may be less likely to change their skills investment behaviour.

Projects which most easily gained employer momentum were often transactional and service-based and this approach was essential to engage SMEs. These firms will not necessarily engage in broader change in attitudes to skills or investment behaviour once their immediate needs are met. However immediate relevance to meeting their needs may also be a precondition of engagement with EIF and GIF programme activities for these types of employer. Context is also important here, as firms in some sectors face more obvious and acute skills shortages than others. Projects funded by EIF and GIF to address problems in sectors with historically lower levels of employer investment in skills solution were faced with higher barriers to changing employer behaviours. This made it harder to stimulate employer demand for co-investment and engagement in skills solutions. For example, one Delivery Partner interview highlighted that employers within their sector were used to gaining government funding to meet skills needs, and asking for them to invest in the face of reduced or no subsidies was a real step-change. In addition, sectors which had not experienced systemic and entrenched skills shortages were dealing with employer cohorts who had lower appetite to engage.

The research showed a number of success factors at play and potential for lessons learned for Delivery Partners including: being highly selective about products and services in the pre-application phase to identify those most likely to appeal to employers; having a narrow set of initial objectives and a single product or service was more likely to lead to progress towards

sustainability than undertaking a large, multi-stranded project; the importance of bespoke research to inform design and development of projects attempting to engage more challenging groups such as SMEs; and adapting and responding to changes in external circumstances and feedback from employers throughout and not just during design and development to ensure long-term sustainability.

3 Impact and success of EIF and GIF

This chapter outlines how the EIF and GIF programme performed against its intended aims. This includes evidence on why and how employers were engaging with the programme activities. It also includes the results of the impact analysis under two broad headings:

- Impact on training behaviour; *and*
- Impact on business outcomes (i.e. around recruitment, staff retention and productivity).

The impact analysis is based on surveys conducted with employer beneficiaries and a matched comparison group of similar employers. Surveys were undertaken with both groups in summer 2014 (the baseline) and again a year later (the follow-up) to measure the changes over time that could be specifically attributed to participation in EIF and GIF activities[7].

For context, the chapter also covers the profile of employer beneficiaries engaging in EIF and GIF activities, to understand how they might differ from a typical employer, and how this might help to explain the impacts that were found. Findings from the qualitative in-depth interviews with employers that offer further insights on the observed impacts are also covered here.

3.1 Characteristics of employer beneficiaries

Based on the sample achieved in the follow-up survey employer beneficiaries appeared to be quite different to the UK employer population as a whole, which may serve to explain some of the results (see Table 2, section 1.2):

- There were significantly fewer small employers: 69 per cent had fewer than 50 employees at the site compared with 95 per cent in the UK employer population. Correspondingly, medium and large establishments were over-represented (23 per cent of beneficiaries had 50-249 employees and eight per cent had 250 employees or more). This may reflect that larger employers were more likely to have in-place systems to detect skills issues among their workforce and to seek solutions like EIF and GIF.
- Employer beneficiaries in the survey were most likely to be in the manufacturing sector (38 per cent compared to six per cent of the UK employer population), and the majority were for-profit organisations (81 per cent compared to 86 per cent of the UK employer population).There was over-representation of employers in the charity and voluntary sector compared with the UK employer population (13 per cent compared with nine per cent)[8].

The combination of these characteristics suggests an over-representation of employers who were more likely than average to provide training to their employees. This was also apparent in the baseline survey which provided measures of employer beneficiaries' engagement in training prior to participation in EIF and GIF: 85 per cent had arranged or funded training or development for their staff in the previous 12 months, and 78 per cent had arranged off-the-job training. The majority of these said that at least *some* of their employees were being trained towards a nationally-recognised qualification (74 per cent). Over half (54 per cent) of all beneficiaries had a training plan. These incidences were all higher than reported in the UKCES Employer Skills Survey 2013 for the UK employer population as a whole.

[7] Full technical details and the full set of impact analysis findings are in the Technical Appendix
[8] UKCES Employer Skills Survey 2013, Evidence Report 81, January 2004

The qualitative interviews also commonly found EIF and GIF beneficiaries to be active training users with strong beliefs in the value of investing in training and staff skills, and typically having structured processes guiding their spending on training and skills.

> *We have bespoke provision. We will continue to invest in areas identified as gaps and shortages. We have a quite sophisticated approach*. [SME]

While these employers used recruitment as one tool for tackling skills needs, they often saw training as a key mechanism to address skills issues and were keen to develop skills in-house.

In all, these findings offer an explanation on why the most significant overall impact observed in this evaluation, presented later in this chapter, appeared to be around training volumes, since employer beneficiaries already had a tendency to engage in training. At the same time, the atypical high engagement of EIF and GIF beneficiaries might have made it more challenging to detect an impact on some of the more specific training outcomes (e.g. training intensity and investment in training), as many employer beneficiaries had already invested heavily in training, so there was less scope for improvement on these measures within the relatively short timeframe of the evaluation.

3.2 Motivations for employer engagement

Beneficiaries' motivations for participating in the programme were also found to be consistent with the policy intent. The main reasons for using programme activities at the baseline stage were to: improve the ability of employees to do their job (73 per cent), to acquire the skills needed to grow their business (72 per cent), and to increase understanding of the skills or training needs of employees (61 per cent).

Employers in the qualitative interviews articulated a need to fill skills shortages for apprenticeships which were connected to business growth ambitions and a shortage of technical, scientific and skilled roles. They also put forward a number of additional motivations for engaging in EIF and GIF including:

- Reduced administration burden offered by Employment and Apprenticeship Brokerage services. This was important for small firms as a basic principle of user engagement as some would not have participated without. It also offered considerable appeal to large employers seeking to reduce costs of recruitment.
- Quality and convenience of service provided for Employment and Apprenticeship brokerage projects, including local and sectoral knowledge. This was important for employers trying to find specialist technical skills who did not want to waste their time on selection processes for unsuitable candidates.
- Being asked at the right time, especially for employers who were already considering taking on an apprentice but were unsure of the next steps to take.
- Convenience of skills diagnostic services which were offered onsite which was especially appealing for SMEs with limited defined expectations for the service.
- Low / no costs or incentives and free training, especially for small employers using networks. These used skills diagnostics services, employers receiving payment for offering a work placement, and cheaper costs of employing apprentice via Apprenticeship Training Agency (ATA) than directly.
- Having a voice e.g. via creation of a policy lobbying network or having larger customers hear views through a network. This appeared important in heavily regulated sector and/or where smaller or second tier suppliers reported feeling dominated by larger firms.

- Economies of scale in training delivery, reducing costs for training brokerage projects. Cost savings provided the motivation for larger firms including competitors to co-operate.
- Reputational gains with key customers for SMEs taking part in projects relating to adoption of training standards. This was appealing in sectors where securing trust and repeat contracts from large customers is important for smaller firms.
- Opportunity to gain access to other sources of funding either through gaining knowledge of funding sources via network participation or information on funding sources via skills diagnostic services, especially for SMEs.
- Opportunities to network. This was appealing for firms in sectors such as creative industries where networking is important for winning business, promoting products and finding new partners and collaborators.
- Corporate social responsibility. This motivation was more common among large employers engaged in projects that were aiming to improve sector image and attract new recruits.

3.3 Employer collaboration

EIF and GIF projects were intended to be employer-led and there was also evidence that EIF and GIF had supported employers to collaborate on skills solutions, in line with the wider aims of the programme. Half of all beneficiaries (52 per cent) said they had worked with other employers in the previous 12 months, most commonly to make training more relevant to the needs of their business (33 per cent). Other activities included working with other employers to improve the quality of training they receive (29 per cent), making it easier to access training (27 per cent), and reducing training costs (27 per cent).

The level of reported collaboration by beneficiaries was higher than the national average found in the Employer Perspectives Survey 2014 (in which 17 per cent of establishments had worked with another employer in the past 12 months with regards to its training and skills development practices) and, again, whilst the findings are not directly comparable due differences in the make-up of employer beneficiaries, the magnitude of the difference suggests that EIF and GIF have had a positive effect in this respect.

3.4 Impact on training behaviour

A central outcome of interest was the impact of EIF and GIF activities on training behaviour. EIF and GIF investment was intended (within the relatively short evaluation timeframe) to lead to increases in the volume of training offered by employers through delivery of products and services that better reflected the needs of employers.

Training volumes

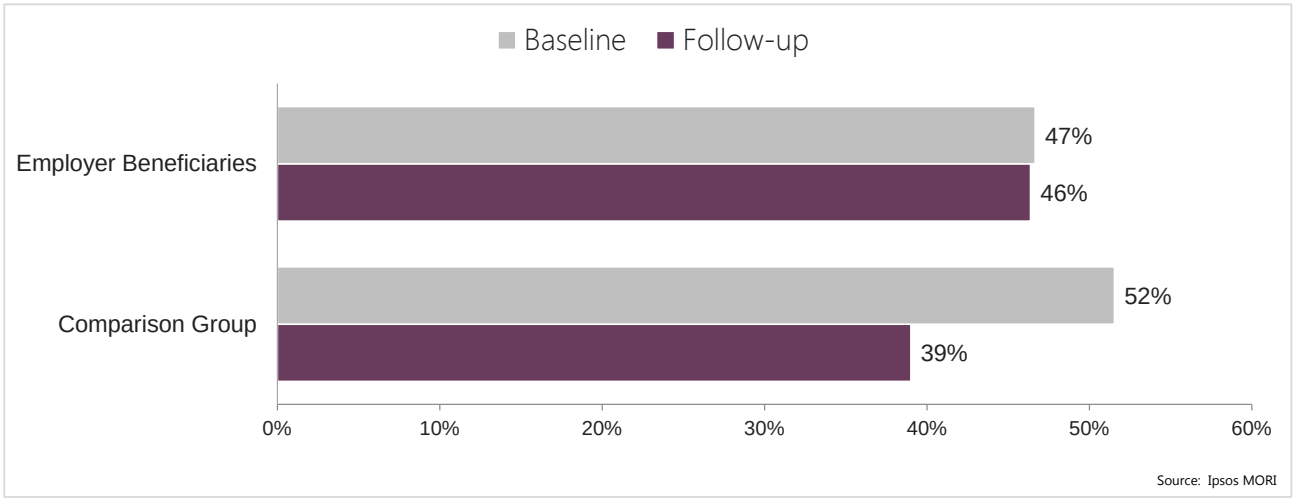
The impact analysis found that EIF and GIF engagement significantly helped to sustain the volume of training[9], preventing a decline of around 12 percentage points (which was expected to occur in the absence of the schemes). This is shown in Figure 3 below.

[9] In line with the method used in the UKCES Employer Skills Surveys, this calculation took into account the number of individuals receiving on- or off-the-job training, but excluding induction and health and safety training where this made up 75 per cent or more of the total training provided.

For employers in the comparison group, training volumes fell by 13 percentage points across the baseline and follow-up surveys (from 52 per cent of their staff to 39 per cent). For the sampled employer beneficiaries, training volumes were observed to fall by one per cent (from 47 per cent to 46 per cent). The difference between the two amounts to 12 percentage points.

It is important to note that this is different from saying EIF and GIF led to an *increase* in training volumes. Instead participation in the activities kept the proportion of employees trained at a stable level.

Figure 3 - Employees trained as a proportion of the total workforce



Base: employer beneficiaries (848); Comparison group (813)

As well as being observed at the overall level, subgroup analysis detected an impact among beneficiaries accessing Apprenticeship Brokerage or Networks activities, as well as in activities funded specifically through one of the Delivery Partners with a high representation of employers using Apprenticeship Brokerage. The analysis for all three of these subgroups identified that EIF and GIF had prevented a decline in the proportion of the workforce being trained.

It is worth noting that this finding does not necessarily reflect the nationwide trend. The Employer Skills Survey 2015 found a national *increase* in the proportion of employees receiving training (63 per cent compared to 62 per cent in 2013). This again reflects that the make-up of EIF and GIF beneficiaries is different to the national profile. The differences are less pronounced when looking at specific sectors rather than nationally. For example, a large proportion of the EIF and GIF sample in the follow-up survey comprised firms in Information and Communications. In the Employer Skills Survey 2015, training volume in this sector declined by six percentage points (from 66 per cent in 2013 to 60 per cent).

Investment in training

While there was an impact on training volumes, no corresponding impact was detected on investment in training. In other words, employers partaking in EIF and GIF activities were not necessarily spending more money to halt the decline in training volumes.

The qualitative interviews suggested that there was a greater emphasis on more cost-effective training approaches among employer beneficiaries. However, employers perceived a limited impact on the cost-effectiveness of training *as a result of* EIF and GIF. Instead the qualitative

interviews highlighted a general greater emphasis on cost-effectiveness of training methods as part of a wider strategy, particularly among larger employers:

> *Financially the amount hasn't changed, but we are being more creative within the budget* [large employer]

Some employers highlighted digital learning as a way of better maximising training under budget constraints. Much of this focused on capitalising on the value of innovations, such as online training, DVDs, YouTube tutorials and Virtual Learning Environments. Some EIF and GIF products delivered in online formats were being used as part of this shift. Some noted that using digital learning provision was more broadly considered a positive step, as it allowed employees more flexibility to combine work and study, and lowered barriers to participation in work-based learning:

> *There is no change in the resource cost with digital learning. The virtual learning environment is cost effective as it is learner-driven and taught through DVDs etc. Cost savings will be felt in the medium term as travel costs etc. reduce.* [large employer]

There were some indications that beneficiaries had moved more training in-house:

> *Our training is no longer delivered by partners. It was too expensive to continue.* [large employer]

Others had moved towards more blended training approaches comprising, for example, formal apprenticeships or graduate training schemes with set developmental opportunities alongside ad-hoc additions for other staff, to support business plans and skills needs:

> *For more skilled, established staff they don't need much training. They've been with us quite a few years now, they've got the knowledge. There will be no 'academic' training, it will be purely on the job.* [SME]

> *We have apprentices, so this is a formal training process. When we identify skills gaps, especially regarding leadership and management skills, we sometimes have further training to address them in an ad-hoc manner.* [large employer]

The qualitative interviews also found that legal or organisational necessity for training was the most prominent driving factor for beneficiaries increasing or maintaining training volumes. This was especially the case where training priorities – for both new and existing staff - were focused on meeting regulatory requirements, legal compliance, quality assurance and health and safety requirements. Funding for these courses was often ring-fenced. Costs of training and business context shaped employer decisions about targeting provision. A common theme in the interviews was that firms faced budget pressures due to difficult trading conditions, so compliance training was prioritised above training with a focus on benefiting staff through enabling progression or boosting retention.

> *Health and safety training take priority over everything else because it's a mandatory requirement. Part of the budget is ring-fenced for this. Whatever other external training we're able to provide is determined by business performance and the external market. Given this, in the last two years we've not been able to provide any other external training aside from health and safety.* [SME]

For businesses facing cost pressures, sustaining the business and delivering a profit were of most importance and some training received less attention in a context of diminishing and unreliable funding support.

> *The most pronounced barrier is that we have to make a profit for our shareholders. When times are tough, training is easy to cut.* [large employer]

For beneficiaries able to invest beyond compliance training, a typical theme in the qualitative work was around using EIF and GIF supported training to help them achieve future ambitions. Staff training was used to support business growth through addressing low skills levels and restricted talent pools which constrained individual and organisational development. Employers wanted to upskill and professionalise their workforce including cross-training employees from different departments.

Taking on younger, enthusiastic staff was a particular motivation for Apprenticeship Brokerage beneficiaries who felt that apprentices could be moulded and contribute towards addressing current and future skills needs and succession planning.

> *We spend a lot of time looking in depth at the business plan and matching our training to it. There is a balance to be struck between what has to be done and what we want to do in order to follow the business plan, which the apprentice model addresses well.* [large employer]

> *This is a key area of the business, it's important to invest in it. We need to expand into this market so that the firm can provide a more diverse service for our clients. We want to be able to offer more in a competitive market.* [large employer]

Taking these qualitative findings as a whole:

- Decisions to invest in training *beyond* meeting regulatory needs were reliant on business performance and availability of funds.
- Decisions about the *type* of training to prioritise stemmed from business objectives.
- These drivers highlight the challenge for programmes like EIF and GIF attempting to have an impact in the short term (i.e. in the timeframe of this evaluation) on training investments. In the interviews, beneficiaries commonly said they made training investments in the hope of tackling long-term problems such as workforce ageing, future technological change and the possibility of future increases in global competition by improving organisational readiness to meet these challenges. They had no specific intention for EIF and GIF engagement to have a more immediate impact on business performance, and the issues they were intending to address were also likely to be affected by many other factors in the short term.

3.5 Impact on business outcomes

Increases in training investment were anticipated to induce or enable wider changes in the performance of the businesses or organisations concerned. For example, workforce development activities might allow managers and business owners to introduce managerial innovations, more efficient technology, or higher quality products.

As set out in the logic model, it was anticipated that the EIF and GIF programmes would lead to a wide range of these business outcomes, including:

- Improving employee' ability to do their jobs;
- Improving customer satisfaction and sales, through the development of higher quality products and services;
- Reducing wastage and fewer accidents;
- Increasing staff commitment and reducing staff turnover and recruitment costs;

- Increasing take-up of apprentices;
- Increasing productivity and profitability; *and*
- Widening the adoption of high performance working practises.

A number of these outcomes were captured in the employer beneficiaries and comparison group surveys; those which could be robustly collected were included[10]. Additionally, given the causal sequence set out in the logic model, it was anticipated that these types of effect would be observed after initial impacts on training behaviour, and it was likely that impacts would only be visible beyond year 2 of the evaluation. However, baseline and one-year follow-up data are presented here for information.

Employees' ability to do their jobs

The analysis did not detect an impact on the proficiency of staff (as reported by the employers). Both employer beneficiaries and the comparison group reported no significant change in this measure between the baseline and follow-up.

There was some evidence that accessing Skills Diagnostics activities or activities through one of the Delivery Partners (with a high representation of employers using Skills Diagnostics activities) had an impact on worker's ability to do their jobs. Specifically, these employer beneficiaries reported *an increase* in underemployed staff (i.e. the proportion of employees who were thought to be over-skilled or overqualified for their jobs), whilst the comparison group reported no change. The qualitative evidence was unable to elaborate further on this finding since the light-touch nature of many Skills Diagnostic interventions meant that many employers found it hard to recall the activity and attribute any consequences to it.

Staff retention

The analysis detected a two percentage point increase in staff turnover[11] among employer beneficiaries: at the baseline the staff turnover for employer beneficiaries was nine per cent of the workforce, which rose to eleven per cent at the follow-up stage. By comparison, staff turnover for the comparison group was ten per cent of the workforce and this remained unchanged at the follow-up stage.

A similar pattern was also observed in one of the beneficiary subgroups: among participants who had accessed Skills Diagnostics activities, EIF and GIF appeared to have increased the staff turnover for these employers.

The qualitative interviews were unable to expand on the possible reasons for this pattern; the employers interviewed either had very high or low staff turnover which were unrelated to their participation in EIF and GIF. One possible hypothesis is that skills acquisition via EIF and GIF made employees more mobile in the labour market. Another is that employer beneficiaries chose to engage in EIF and GIF activities because they anticipated an increase

[10] These measures were not included in the survey: customer satisfaction and sales, the development of quality products and services, wastage and accidents, staff commitment, or the adoption of high performance working practises.

[11] A measure of the number of employees who had left the organisation over a 12 month period, but not as direct result of redundancy or downsizing.

in staff turnover. However, the evaluation found no evidence to support these explanations and, moreover, the impact on employees was not within the scope of this research.

Recruitment

At the overall level, the analysis did not detect an impact of EIF and GIF activities on recruitment in terms of: the number of vacancies posted by employers, vacancies which were filled, or vacancies which were deemed hard-to-fill.

However, the analysis did detect an impact among specific subgroups:

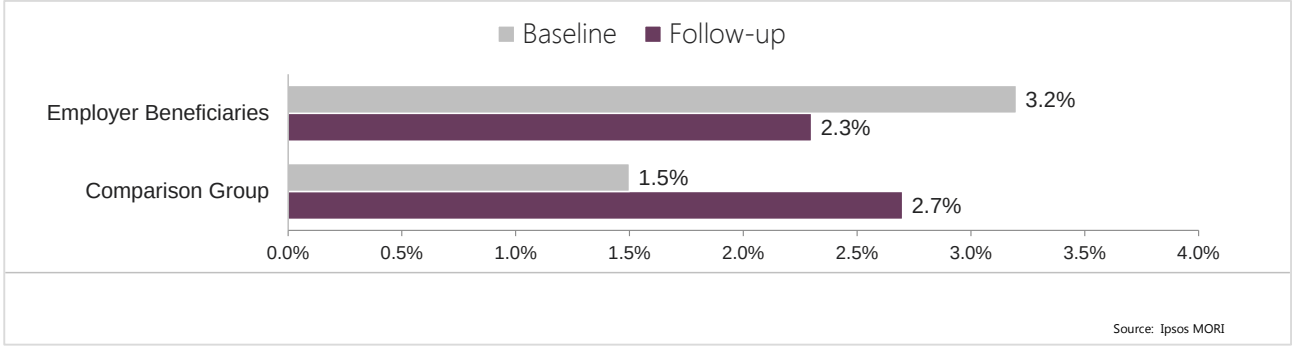
- There was a reduction in the average number of hard-to-fill vacancies among participants accessing **Apprenticeship Brokerage** activities.
- There was a reduction in **hard-to-fill vacancies** and **recruitment activity** among employer beneficiaries accessing activities through one of the Delivery Partners (with a high representation of beneficiaries engaged in Apprenticeship Brokerage activities) suggesting that Apprenticeship Brokerage activities had eased employers' skills shortages and recruitment costs.

Apprenticeship vacancies

The analysis detected a negative effect on apprenticeship opportunities among employer beneficiaries – that is the number of apprenticeship vacancies as a percentage of the total workforce declined relative to the comparison group. This was evident at the overall level and among employer beneficiaries using Apprenticeship Brokerage and Skills Diagnostic activities, or those accessing services through one of the Delivery Partners (with a high representation of employers using these two types of activities).These findings, combined with the reduction in hard-to-fill vacancies and recruitment activity described above, suggest that for a subgroup of employer beneficiaries, EIF and GIF may have eased hard-to-fill apprenticeship vacancies resulting in fewer such vacancies.

As shown in Figure 4 below, employer beneficiaries reported vacancies for apprentices equivalent to 3.2 per cent of their total workforce at the baseline, and 2.3 per cent at the follow-up. The comparison group, however, reported apprenticeship vacancies equivalent to 1.5 per cent of their workforce at the baseline, rising to 2.7 per cent at the follow-up stage. This meant that participation in EIF and GIF reduced opportunities for apprentices by 0.8 percentage points.

Figure 4 - Vacancies for apprentices as a proportion of all employees



Base: employer beneficiaries (513); Comparison group (431)

The qualitative interviews also found evidence of high levels of previous involvement with apprenticeships among employer beneficiaries, which was reflected in their starting position at the baseline in terms of the proportion of apprenticeship vacancies offered (in Figure 4). A number had been involved and spoke positively of developing apprenticeship Trailblazer standards. Many SMEs were familiar with the process of taking on an apprentices and supporting their training. Engagement with apprenticeships was often characterised by long-term usage lasting a number of years.

However, the qualitative interviews also highlighted that apart from large or very large firms with long-established apprenticeship programmes with regular annual intakes, EIF and GIF beneficiaries did not generally offer apprenticeship vacancies regularly. For example, SMEs who recruited an apprentice stated that they would not need to again until their current apprentice completed or the business expanded significantly. Others had roll-on / roll-off apprentice programmes but only took one apprentice at a time. The implication of this is that the specific activities undertaken to boost demand for Apprentices through EIF and GIF are unlikely to result in increases in apprentice numbers in the short-term.

> *It's not something you do every year with a succession of people but I think we will look at doing this again… we're not talking about lots - this would be a few over the whole company* [SME]

> *The demand for apprentices is business driven. If the business grows, then we'll take on more apprentices* [SME]

Productivity and profitability

The primary economic effect of the EIF and GIF programmes was anticipated to be raising the productive capacity of workers through their acquisition of new skills. Any effects in these areas would be reflected in enhanced Gross Value Added (GVA) per worker within those firms benefitting directly or indirectly from the training infrastructure developed (driven either by enhanced efficiency or quality). The benefits of greater productivity would then accrue to both employees in the form of higher wages (which is outside the scope of this evaluation), and to employers in the form of higher profits. It was anticipated that these benefits would be observed after initial impacts on training behaviour, and it was likely that impacts would only be visible beyond year 2 of the evaluation. This was reflected in the impact analysis results which did not detect an impact of EIF and GIF activities on business turnover, profitability or productivity – that is, at this early stage there was no difference between the beneficiary and comparison groups on these outcomes.

The qualitative interviews with employer beneficiaries also found that several employers anticipated *future* benefits from involvement in EIF and GIF, particularly users of Apprenticeship Brokerage and Employment Brokerage where employers believed they would benefit as staff continued to develop skills. For example, employers anticipated that these recruits would move into future leadership roles, increase staff ability to support each other and expand future technical skill capacity as apprentices acquired experience. This may, in turn, lead to wider business impacts such as cost savings in production processes and longer-term efficiencies.

3.6 Conclusions

EIF and GIF sought to achieve sustained change in how employers engage with, and invest in, skills in order to raise skills levels, improve access to and deployment of skills, and raise business performance. The programmes sought to encourage employers to take more direct responsibility

over training provision by investing in projects that were demand-led and innovative with significant co-investment from employers.

It was anticipated that the effect of EIF and GIF would be measurable within the timeframe of the evaluation (one to two years after engagement) in terms of an impact on training volume and expenditure reported by employer beneficiaries. Business performance outcomes such as employees' ability to do their jobs, recruitment and an increase in productivity and profitability were anticipated *after* the initial impacts on training behaviour and it was likely that these impacts would only be visible beyond year two of the evaluation and this report.

At this early stage, the evaluation found limited evidence of an impact on employer investment in skills and no evidence of improvements in staff turnover or staff proficiency. There was some evidence of easing of recruitment difficulties among beneficiaries using Apprenticeship Brokerage.

EIF and GIF activities have halted a decline in the *number of employees* receiving training without a corresponding impact on training expenditure: employer beneficiaries have sustained their training activity partly by using more cost effective means which some were doing independently of EIF and GIF. Furthermore, the evidence suggests that the impact detected may be conflated because employer beneficiaries already had higher than average pre-disposition towards training before engagement with EIF and GIF (the impact analysis can only control for observable differences measured in the survey and not for unobservable differences such as views and attitudes).

It is clear that it is challenging for programmes like EIF and GIF to have an impact on training expenditure and volume within this evaluation's timeframe. This is because employers' decisions to invest in training beyond meeting their 'core' requirements are primarily driven by other factors such as business performance, availability of funds and wider considerations such as future technological changes and increases in global competition. This suggests that a much longer timeframe should be considered for evaluation in relation to any skills infrastructure projects given that training impacts may take up to seven years to materialise.

4 Sustainability

This chapter considers what has happened or is likely to happen to employer culture and behaviours and to EIF and GIF project activities themselves after funding ceased. This is in line with the UKCES definition of sustainability which is either:

- Achieving culture change and behaviour change among employer beneficiaries, so that they would continue to make internal investments in training and skills started as a result of EIF and GIF, or would invest in new skills products or services outside of EIF and GIF projects[12]; *or*
- EIF and GIF projects continuing as paid-for products or services, not necessarily with ongoing public funding.

The chapter covers:

- Whether employers felt their values and attitudes around training had changed as a result of participation, and how this might change behaviours in the long run;
- Delivery Partners' expectations about continuing EIF and GIF activities beyond the original programme, and the kinds of projects considered more sustainable;
- Employers' willingness to co-invest in activities to make them sustainable, and the drivers of willingness to co-invest; *and*
- Potential lessons for future projects to more closely meet employer needs.

4.1 Changes to employer attitudes and intentions

Did employers feel they would sustain or increase the numbers of staff being trained after EIF and GIF?

In the qualitative interviews, some beneficiaries reported changed future intentions as a result of their participation in EIF and GIF activities, even in instances where they did not feel these activities had directly or to-date improved their training outcomes. Those who were anticipating a rise in training volumes also expressed a greater desire to implement training, now they had seen how to do it and where to access provision.

> *From being involved and getting to know the qualification, that is something historically we haven't looked at, and we are now looking to roll that out across the workforce, across all that staff group*. [large employer]

In particular, where training and taking on new recruits were felt to produce higher quality staff performance, employers were more open to making further training investments.

However, it should be acknowledged that, often due to external factors, some firms anticipated reducing the number of staff they trained after partaking in EIF and GIF, particularly as budgets came under scrutiny. Notable pressures included pay increases from the National Living Wage affecting the social care sector, or reallocation of training budgets to support other activities such as marketing or business expansion.

[12] As defined in the UKCES Sustainability Toolkit (2014)

Did employers place more value on training than before?

It is worth bearing in mind that, for the most part, employer attitudes towards training seemed to be unchanged following EIF and GIF involvement. This reflects the fact that EIF and GIF beneficiaries showed a high level of engagement in training and strong beliefs in the value of investing in staff skills from the outset. Therefore, substantial attitudinal changes were unlikely to develop.

> *There has been no change. Our organisation always valued training. It's received training awards*. [large employer]

Nonetheless, a few employers, particularly SMEs, reported changing their beliefs about the value of training as a result of EIF and GIF involvement. They reported a growth in confidence in using training to meet organisational needs. Some employers felt more able to bring in lower-skilled recruits or use existing staff and train them to fit a job specification rather than simply trying to recruit more experienced staff.

> *There is more need for training. We are coming to the conclusion that it is something we need to plan for. We've got some good people here so we need to realise that we've got to develop what we've got, not just bring someone in from outside*. [SME]

Some also noted that developing a training culture stimulated staff interest in learning, which could lead to future demand for more training. Employers of all sizes noted that taking on highly motivated staff, especially apprentices, and investing in their development had led to greater interest in training among the wider workforce. Other staff became more willing to undertake training and upskill themselves.

Across the interviews, managers believed that training made firms more agile and responsive to future business needs, putting them in a good position against competitors in the future.

4.2 Which types of projects were sustained?

Fourteen projects were no longer in operation by the second wave of the evaluation. Although all types of activities were represented in this group, more Employment Brokerage projects were discontinued. A mixture of public and third sector funding combined with direct employer purchase of services was used by seven projects. Ongoing private sector investment / sponsorship had been secured by five projects, and for two projects employers were engaging directly with providers through the open market.

Table 3 - Sustainability outcomes

Sustainability mechanism	Number of projects
No sustainability mechanisms – project not sustained	14
Blended: Public and third sector funding and employer purchase of services	7
Private sector investment/sponsorship	5
Open market provider engagement	2

Not all EIF and GIF projects were expected to make the transition to sustainability without funding. In the qualitative interviews, Delivery Partners reported that some projects were intended as a series of experimental pilots, without expectation that all would be sustained. Policy focus on sustainability increased during the lifespan of the programme though the case studies found no evidence of projects launched in the later funding rounds being more sustainable.

Employer beneficiaries and Delivery Partners suggested in interviews that more tangible and readily-commercialised projects were more likely to be sustainable, while projects were less likely to achieve sustainability where they aimed to address intractable market failures in the infrastructure of the skills system. Extrinsic labour market factors also limited sustainability. This means that:

- Projects that led to the development of new standards and qualifications products were more typically sustained. Employers were committed to the need for a qualification or certification once it had been developed and was proven to meet their needs.
- Models of employer beneficiary co-funding also affected sustainability; for example, one Delivery Partner reported that setting up a project where employers paid the whole cost of training upfront and only received a rebate after delivery meant that more employers were enticed to continue paying even when the rebate was subsequently removed.
- Projects set up to be commercial paid-for services with a clear pricing policy from the start were also more likely to have continued than other projects, which tried to commercialise at a later stage.
- Sustainability of some projects was reliant on external market factors. For example, Employment Brokerage projects were more likely to be discontinued because of:
    - Changes in labour market demand for some occupations targeted by the projects;
    - Brokerage services seeking to place candidates who were further from the labour market; and
    - Employers being able to recruit readily from other sources.

Stakeholder interviews also highlighted that commercialised projects would not necessarily address market failures in cases where employers do not currently recognise or value certain services. This was evident in an apparent lack of demand for Skills Diagnostics services among SMEs. Delivery Partner and stakeholder interviews suggested that these services played an important role in helping employers to think about their skills needs and opportunities, but employers were often unwilling to pay for Skills Diagnostic activities alone.

One solution offered was packaging Skills Diagnostic services within other more tangible products, such as Employment Brokerage or Apprenticeship Brokerage, which employers were more willing to pay for. There is therefore a persistent important role for intermediaries with some public funding to sell the benefits of skills investment to SMEs if some of the persistent and difficult market failures among this group are to be addressed.

4.3 What made employers willing to co-invest?

The qualitative evidence from employers indicates that they were more likely to report being willing to co-invest than not, although intention does not necessarily translate into action. A sizeable group was unable to answer, as they wanted look into costs and benefits in more detail, or judge each training investment decision on case by case basis.

It was clear from the qualitative evidence that employer beneficiaries' willingness to co-invest in EIF and GIF projects was strongly driven by their perceptions of value for money. This in turn seemed to depend on various factors. The content or quality of training and the calibre of new staff joining as a result of EIF and GIF activities seemed to be a particularly prominent factor. For example, one employer was more positive around the value for money of a Networks activity when this had sparked a chain of events that led the business to take on a valued apprentice.

Some employers noted that smaller businesses may struggle to understand the value of investing in skills infrastructures but *would* see the rationale of purchasing training, qualifications or staff – this was particular strong for employers using Apprenticeship Brokerage, and, to a lesser degree Training Brokerage and Employment Brokerage services.

> *We would continue to fund places on this university course without the subsidy because we like the degree qualification that our employees get.* [SME]

> *I would continue to use it if I had to pay – if it was a high quality framework, high quality training, contributing towards professionalism of workforce*. [SME]

On the other hand, negative views of value for money were sparked by low staff retention, and any sense that Delivery Partners were more focused on improving their own bottom line than delivering a quality intervention, or where qualifications were seen as low quality or lacking selectivity and, therefore, value in who could gain them.

> *In the end the qualification wasn't valued highly enough to be worth it. I was told that everybody passes and wondered why would anybody do a Level 3 qualification if everybody passes. What's the point?* [SME]

Other factors influencing willingness to co-invest included:

- Where employers had identified that the Delivery Partners had helped to lessen administrative burdens;

> *I felt the service was good value for money, especially because of the Delivery Partner's work in getting the portfolios of the applicants ready for application. We would not have been able to do that without the Delivery Partner's help*. [large employer]

- Where employers deemed that the investment was low-risk (e.g. if the investment was about paying the apprentice wage, this was perceived as low-risk as the employer would effectively end up with another body to help in the workplace but at a lower cost than a full-time employee); *and*
- Where projects had led to cheaper recruitment costs for employers.

By contrast, willingness to pay was lower when employer beneficiaries perceived themselves to have high 'in-kind' costs from participating in EIF and GIF activities. There was a sense in the qualitative interviews that beneficiaries wanted to calculate whether the benefits of taking part would not only exceed the level of financial contribution required, but also the in-kind contribution. Several interviewees asserted that employer in-kind contributions had been underestimated in terms of supervision of new staff, especially for employers using Employment Brokerage services.

Employer beneficiaries using Apprenticeship Brokerage and Training Brokerage activities in particular seemed to be looking into figures in detail in order to assess the costs of the services provided, and whether these were proportionate to fees charged by Delivery Partners and other recruitment sources.

> *The amount of employer time invested has to be recognised at some point. It is a genuine, real issue. I think that's why you don't have as many people involved. These programmes massively underestimate the contribution of employers, disappointingly so in my view*. [large employer]

> *The partnership is supposed to be that we provide the expertise and the premises and the resources and the assets, and the Government provides the money to provide the apprentices. This is how it should work, in partnership*. [SME]

Some employers taking part in training Networks similarly could not understand why they would pay for the service when they felt they were doing the legwork of setting up and attending meetings, and defining and sourcing required training provision. The value employers felt they derived from Networks was often not sufficient to warrant paying for the service *alongside* the time they needed to commit to participating. These employers noted that if they did not have to run the Networks themselves, they would be more willing to pay. This suggests the need for a coordinating intermediary role, as employers tended to position themselves as participants who are influencing the content of Network activities but are less keen to organise and run them.

> *The effort was ours, not the Delivery Partner's.* [large employer]

Given that evidence suggests employers were unwilling to contribute financially to Networks, but the need for upskilling across sectors remains crucial, there may be an ongoing role for public investment to cover some of the expenditure in order to tackle deep market failures.

However, it is important to note that, in contrast, some of the beneficiaries interviewed found it hard to judge value for money and whether they would invest money in future, in some cases because costs and benefits were not yet clear. Others also noted that their motivations to engage were not financial, so they did not make decisions about future investment and benefits on that basis.

4.4 Future improvements to better meet employer needs

The qualitative work also explored what employers felt would need to change for interventions like EIF and GIF to better meet future or emerging needs.

Across different activities, a common theme was the desire for more consultation with employers both at the outset and on an ongoing basis, to design and evolve projects that would work better, be more relevant to their needs and potentially be more sustainable. Employers using Networks felt these should pay more attention to frontline best practice rather than top-down directives. For example, one employer explained how the 'vast amount' of practitioners within their sector seek individuals qualified at Level 3 and want quality to be improved at this level, whilst Network activity was directing its attention at developing a postgraduate qualification which was at odds with needs on the ground.

Those using GTAs noted that they should be "constantly communicating and listening to people with inside knowledge so they can offer the best, most constructive advice to the organisations involved". Among those using Apprenticeship Brokerage there was an overall feeling that there should be more employer input into courses or modules.

Another theme was around focusing more on the quality of services as opposed to just the number and variety of services available. For example, users of Employment Brokerage highlighted that there should be a closer fit between employee aspirations and organisations, as the following quote illustrates:

> *There needs to be some refining of the match, getting local employers and skills needed matched up. We had some reports that matching wasn't ideal. A financial and accounting organisation was offered three young people interested in hair and beauty. We worry that the numbers game is overtaking the system*. [SME]

Similarly, suggestions for improving Apprenticeship Brokerage focused on training providers, who might offer better communication, make improvements to tutoring and increase their investment in external assessors. Employers felt this would make delivery more streamlined and improve the

quality of training provision. This focus on quality over quantity also links to the findings in the previous section of this report, around higher willingness to pay for high quality services.

While, as covered in the previous chapter, some employers had noted that using digital learning provision was a positive step, there was an overall feeling that web promotion was not a sufficient substitute for having skills brokers on the ground that went and visited companies. This was in order to identify the needs of employers to purchase such training and reach less engaged businesses, particularly small businesses. This means that face-to-face outreach and engagement by intermediaries would continue to be an important requirement of future programmes.

4.5 Conclusions

Project sustainability for EIF and GIF skills solutions was intended to be achieved either via a transactional model of continuing 'sales' of a product or service or wider behaviour change among employers to increase their internal or external skills investments. Not all projects were expected to make the transition to sustainability without funding. Delivery Partners reported that some projects were intended as a series of experimental pilots without expectation that all would be sustained. Fourteen projects were discontinued by the end of the evaluation with a further fourteen being sustained through mixed public and private funding including employer investment and purchase of products and services.

There was some case study evidence to suggest that standards and qualifications products were more likely to be sustained once they had gained initial employer commitment, because the process created a market requiring ongoing certification of individual competence. Employment Brokerage projects were more likely to be discontinued due to decreasing labour market demand for the roles these projects supplied both where vacancies were filled and there was decreasing demand for particular sectors and availability of alternative recruitment sources.

Projects established as commercial services from the outset were more likely to be sustained. There was some evidence of persistent market failure of skills diagnostic solutions for SMEs, who were prompted to, for example, recruit apprentices as a result, but were unwilling to pay for advice on skills needs. This service would need careful packaging to be commercially viable and there remains a role for intermediaries in selling the benefits of skills investment to SMEs.

Employers who co-invested time or money in EIF and GIF activities generally felt their investment delivered value for money from lower administrative burdens, cheaper recruitment costs or less risky investments, for example, in apprenticeships. Again, employers were more willing to pay for direct training costs than training infrastructure costs such as course development, running networks or brokerage services. Employers who were unable to identify value for money from participation were less likely to say they would commit to future investment. Employers were keen to make comparisons between the value for money derived from EIF and GIF projects compared to market alternatives once they had participated to determine where they would make future investment.

5 Conclusions and recommendations

The EIF and GIF investment programme sought to deliver a fundamental change in how employers invest in skills in the UK by implementing principles of co-investment and encouraging employers to take more direct responsibility over training provision.

It was anticipated that the effect of EIF and GIF would be measurable within the timeframe of the evaluation (one year after engagement) in terms of an impact on training volume and expenditure. The evaluation found mixed results on these measures which are set out below.

Business outcomes and productivity gains were anticipated *after* the initial impacts on training behaviour and it was likely that these impacts would only be visible beyond year two of the evaluation. Correspondingly the evaluation did not detect an impact on a number of these measures.

Impact on training behaviour

The evaluation did not detect an increase in training volume. Instead it found that EIF and GIF engagement had prevented a decline in training volume of around 12 percentage points which was expected to occur in the absence of the schemes. No corresponding impact was detected on investment in training meaning that employers taking part in EIF and GIF activities were not necessarily spending more money to halt the decline in training volumes.

The evaluation found that prior to participating in EIF and GIF activities, employer beneficiaries were already investing more heavily in training compared with UK employers generally. This offers one possible explanation for why the most significant overall impact observed in this evaluation is around training volume since employer beneficiaries already had a tendency to engage in training. There may also be unobserved differences in terms of attitudes towards training between beneficiaries and the comparison group[13] which means that the size of this impact may be conflated.

The qualitative interviews with employer beneficiaries also highlighted that employers' decisions on training investments were strongly driven by business performance and availability of funds. This means that there is limitation in how far participation in programmes like EIF and GIF can reasonably lead to increases in training expenditure in the short-term.

Impact on recruitment activities

The evaluation did not detect an impact on the recruitment activities of employer beneficiaries in terms of the number of vacancies posted by employers, or the number of vacancies which were filled or which were deemed hard-to-fill. However, there was evidence that Apprenticeship Brokerage activities had eased recruitment activities for those employers that have used them contributing to a decline in apprenticeship vacancies which were hard-to-fill (set out below).

Focusing specifically on apprenticeship vacancies, the evaluation found that participation in EIF and GIF had resulted in a decline in the number of such vacancies. This was partly related to the

[13] The impact analysis controlled for observed differences between the two groups such as size, sector and delivery of training for employees. It was not feasible to control for unobserved differences in terms of views and attitudes.

way in which SMEs recruit apprentices – the qualitative interviews found evidence of high levels of previous involvement with apprenticeships among employer beneficiaries with many SMEs taking a roll-on / roll-off approach to apprentice recruitment. Again, this suggests that programmes like EIF and GIF are unlikely to result in increases in apprentice numbers in the short-term among SMEs already engaged in Apprenticeships.

Participation in EIF and GIF had increased staff turnover by 2 percentage points and the reasons for this are unclear. One possible explanation is that skills acquisition via EIF and GIF activities have made employees more mobile in the labour market (this was beyond the scope of the evaluation which focused purely on the impact on employer beneficiaries). However, from an employer perspective, the evaluation did *not* detect an impact of EIF and GIF engagement on the proficiency of staff (though it should be borne in mind that this was a subjective assessment by employer beneficiaries) suggesting that the explanation is more complex and there are other factors at play.

Overall these findings demonstrated the challenges for these types of programmes to have a measurable impact on business behaviour and outcome in the short-term and consequently a longer timeframe is required for evaluations of skills infrastructure.

Sustainability and the role of employers

EIF and GIF projects were intended to be employer-led to develop *innovative* skills infrastructure solutions that employers would be willing to co-invest.

Among the case study Delivery Partners, the majority of the projects displayed features of contextual (i.e. applying practice in other areas) and adaptive innovations (i.e. taking an existing product but adapting by introducing new ways of working). Very few projects exemplified transformative innovation (i.e. a fundamentally different product or delivery model). Project performance data did not reveal a link between the level of innovation and the performance of a project in terms of employer engagement and/or willingness to co-invest. Rather there was employer appetite for taking well established and credible approaches and applying them to new contexts.

Overall 44 per cent of employer beneficiaries reported being involved in the design or set-up of an activity suggesting that EIF and GIF have been effective in this respect. Active engagement of a core group of employers in the early stages of the programme was critical in confirming initial employer appetite and, in shaping and verifying that the scope of the product/solution was appropriate. As projects were delivered, testing them with a larger group of employers helped to ensure the quality of the product/service being offered was adequate and provided the flexibility to make adjustments addressing emerging or nuanced employer requirements. Across different activities, a common theme was the desire from employer beneficiaries for more consultation at the outset but also on an *on-going basis* to ensure that projects continue to evolve and improve and be relevant to employer needs – a prerequisite for project sustainability.

Project sustainability for EIF and GIF skills solutions was intended to be achieved either via a transactional model of continuing ‘sales’ of a product or service or wider behaviour change among employers to increase their internal or external skills investments. Not all projects were expected to make the transition to sustainability without funding; some projects were intended as a series of experimental pilots without expectation that all would be sustained.

Evidence on sustainability was drawn purely from the case studies and these were mixed: half of the projects were discontinued by the end of the evaluation and the remainder were being sustained through mixed public and private funding including employer investment and purchase of products and services. There are a number of service / product features that designers of future skills infrastructure projects should pay attention to. Some of these have already been used by the UK Commission in developing and designing the Futures Programme (a smaller scale of programme of competitive funding for employer-led consortia to solve market failures related to five individually targeted skills themes):

- Firstly, to be sustainable projects need to be established as commercial services from the outset. One way of doing this is to ask employers to pay the whole cost of training upfront and only receive a rebate after delivery smoothing the transition to full payment once funding ceases.
- Secondly, on-going employer engagement in project design (*beyond* the initial set-up and design phase) is essential to ensure that products and services improve and remain relevant to them.
- Thirdly, employers are more willing to pay for direct training costs than training infrastructure costs such as course development, running networks or brokerage services. SMEs are also less willing to pay for pay for advice on skills needs despite the benefit of these services to them. These services require careful packaging to be commercially viable and there remains a role for intermediaries in selling the benefits of skills investment to SMEs.
- Finally, pricing models need to take into account employers' in-kind investments; willingness to co-invest was lower when employer beneficiaries perceived themselves to have high in-kind costs from participation in EIF and GIF activities such as for Network activities.

More broadly, findings from this evaluation suggest the following lessons:

- EIF and GIF projects ran for two years but a number of experts observed that this may not be long enough to achieve behavioural change in sectors or sub-groups of employers which are used to government taking responsibility for training supply. A longer period of time may be required to wean employers off public funding.
- Evidence shows that detailed research and product market testing is helpful in selecting ideas to take forward and in shaping employer engagement strategies, but support for Delivery Partners to engage in smaller scale 'proof of concept' projects rather than use large scale projects to test out ideas may give better value. Lessons from the wider social innovation literature and organisations active in this field (e.g. NESTA) may be useful to appraise. This approach has been adopted in the UKCES Futures Programme.
- A longer timeframe for evaluation in relation to any skills infrastructure projects given that training impacts may take up to seven years to materialise. This should be combined with a real-time process evaluation to capture variations in impact due to implementation methods.

Technical Appendix

This section presents the technical details of the employer surveys and impact analysis, as well as the qualitative research. Further details about the baseline stage can be found in the baseline reports[14].

The evaluation comprised the following strands:

- An impact analysis using two waves of longitudinal survey with c.900 employers who have engaged in EIF and GIF activities (employer beneficiaries) and a matched comparison sample of c.900 non-participant employers (the comparison group); and
- Qualitative case studies comprising high level consultations with key national stakeholders and more detailed case study research with nine Delivery Partners to investigate the full range of activities developed and delivered by them. Interviews were also conducted with 56 employer beneficiaries at the baseline stage in summer 2014 and 52 employer beneficiaries at the follow-up stage in summer 2015 across six types of activities[15]:
    - Employment Brokerage;
    - Apprenticeship Brokerage;
    - Skills Diagnostics;
    - Training Brokerage;
    - Group Training Activities; *and*
    - Networks.

[14] Ipsos MORI (2015), Impact evaluation of investment funds: baseline quantitative findings
Institute for Employment Studies (2015), Impact evaluation of investment funds: baseline qualitative findings
[15] See page 21 for a list of activities

A Design of longitudinal survey of employer beneficiaries and comparison employers

A.1 Sample frame

The beneficiary sample was sent to Ipsos MORI using secure file transfer protocols from the 28 Delivery Partners identified during the feasibility and scoping phases. Ipsos MORI designed a sample template and then collated all the data sent by Delivery Partners.

There was significant duplication within Delivery Partners' samples and, to a much lesser extent, between Delivery Partners. Sample within a partner's database was prioritised by first looking at the earliest engagement, and then by selecting those with useable contact details over those without.

The de-duping process between Delivery Partners prioritised those with the lowest volume of beneficiaries. The only exception was duplications across Cornwall Marine and Skills Active. These were allocated to Cornwall Marine because they deliver Skills Active's Apprenticeship scheme.

There was also some crossover between the beneficiary and comparison sample (sourced from the 2013 Employer Skills Survey, see below), especially for larger employers. As no company registration number is held on the Employer Skills Survey, employers were de-duped using a combination of postcodes, company names and telephone numbers.

After de-duping, the beneficiary sample contained 10,859 leads. However, not all of these leads had complete contact details. Telephone tracing was run on all leads which had a postal address but no phone number. Two sample files were produced:

1. A main sample file of 8,830 CATI leads with a telephone number, which included 120 leads identified using telephone tracing. In addition, midway through fieldwork, SEMTA also sent additional leads which, after de-duplication, resulted in a further 34 leads.

2. An online sample of 604 online survey leads that had an email address but no telephone number.

At the baseline stage, nearly two-thirds of listed beneficiaries with whom contact was made did not recognise the listed activity, Delivery Partner or provider (there was, however, substantial variation by Delivery Partner as shown in the baseline quantitative report). This was mainly caused by poor and inconsistent recording of activity information (including brand names) by Delivery Partners, though it is also possible that some employers genuinely did not recall the activity due to the indirect nature of the engagement (for example, use of online diagnostic toolkits).

The baseline comparison group sample was derived using respondents to the Employer Skills Survey 2013 – a sample survey of around 90,000 establishments (87,000 in 2011, and 91,000 in 2013). The Employer Skills Survey collected information on the training behaviour of firms (as well as firmographics characteristics, such as sector or size), and it was anticipated this would help improve the closeness of matching between treatment and comparison samples, to help minimise the extent of observed differences between the two groups.

Delivery Partners worked with single-site enterprises, and both branches and headquarters of multi-site organisations. As a result, the beneficiary sample comprised a mix of types of employers.

In order to be consistent between beneficiary employers (and non-participant employers in the comparison group), the questionnaire was designed to collect data at the branch (establishment) level. In cases where the Delivery Partner activity affected all sites of a business, the survey collected information only about the Head Office, or for an establishment of that multisite business nominated by the interviewee.

Participants at the baseline stage were asked a closing question on whether they would be willing to be recontacted a year later as part of the follow-up research. In total, 1,621 beneficiaries (81 per cent) and 1,622 comparison employers (88 per cent) agreed to be recontacted. The follow-up sample was derived only from these participants, using a random probability approach.

A.2 Sample design

The sampling method used for the baseline beneficiary survey differed to that initially proposed because sample eligibility (i.e. the percentage of employer beneficiaries who recalled using the activity) was much lower than anticipated. The original design was for random probability sampling with disproportionate stratification by Delivery Partner. However, low sample eligibility combined with poor contact details meant that the baseline survey was based on a census approach.

A.3 Advance notification

Employers were sent advance emails on 24 April 2014 explaining the purpose of the research and indicating when they might be contacted about the survey. A similar email was sent to employers who agreed to be recontacted for the follow-up survey, on 21 April 2015. A number of respondents chose to opt out of taking part at the follow-up stage: in total 6 beneficiaries and 8 comparison group respondents opted out. In addition, five respondents replied to opt *in* to the survey (of which three were beneficiaries).

A.4 Developing the questionnaire

The survey questionnaire was developed with the following purpose in mind: (i) to collect key outcome measures set out in the logic model; (ii) to collect firmographic information for matching beneficiaries and comparison employers for the impact analysis; (iii) to collect a small number of self-reported measures for interim reporting at wave 1. Table 4 below summarises the topic areas covered in the baseline and follow-up surveys.

The baseline CATI questionnaire was piloted with 84 beneficiaries between 10 and 17 April 2014. An online pilot was also run although no interviews were achieved. The pilot questionnaire was longer than anticipated resulting in substantial cuts to the questionnaire post-pilot.

A datasheet containing key questions from the survey was also made available for respondents to take a look at before being interviewed. Its purpose was to enable respondents to look up the information beforehand and provide more accurate responses to the survey questions. Further information about the datasheets can be found in section A.5.

The survey questionnaire was developed by Ipsos MORI and approved by UKCES. Table 4 below summarises the key topic areas it covered:

Table 4 – Questionnaire topic summary

Topic area	Baseline survey		Follow-up survey	
	Beneficiaries	**Comparison**	**Beneficiaries**	**Comparison**
Screening questions[16]	x	x		
Engagement in EIF and GIF activities and their involvement in designing, setting up or using the services	x			
Firmographics: size, business sector, business activity and occupational structure (including staff turnover)	x	x	x	x
Recruitment and skills shortages (including Apprentice recruitment	x	x	x	x
Skills gaps, staff proficiency and underemployment	x	x	x	x
Investment and volume of training provided for employees, and collaboration with other employers and organisations	x	x	x	x
Perceived impacts of the programmes	x	x		
Employment, turnover, sales and profit levels over the last tax year	x	x	x	x
Engagement in new or additional EIF and GIF activities and their dealings with Delivery Partners for these activities;			x	x
Collaboration with employers or other organisations			x	x
Motivations for choosing to collaborate with these employers or other organisations			x	x
Willingness to pay for EIF and GIF services			x	x

A.5 Fieldwork

The baseline fieldwork took place between 15 May 2014 and 23 July 2014. Overall, 1,980 beneficiaries and 1,835 comparison employers completed the survey. A further 24 quit the survey part way through. Just 12 interviews were completed online. The unadjusted response rate was, therefore, 23 per cent. The adjusted response rate was 56 per cent and there was just 8 per cent refusal rate. The baseline survey averaged 20 minutes for beneficiaries and 15 minutes for the comparison group.

The follow-up fieldwork was conducted by Ipsos MORI between 06 May and 26 June 2015. In total, 929 CATI interviews were conducted with beneficiaries, and 972 were conducted with the comparison group (i.e. 1,901 interviews were successfully completed overall). The surveys averaged 18 minutes for beneficiaries and 12 minutes for the comparison group.

[16] Employer beneficiaries were asked a series of screening questions at the baseline stage to ensure that they were eligible to take part (i.e. their organisation had used and/or had input into the design of the EIF and GIF activities).

Fieldwork preparation

Prior to starting fieldwork, telephone interviewers were briefed by the Ipsos MORI executive team. They also received:

- written instructions about all aspects of the survey;
- a paper copy of the questionnaire;
- a paper copy of the datasheet; *and*
- an email to send to respondents wanting reassurance about the survey.

Screening respondents

During baseline fieldwork, it became apparent that there was inconsistency in how Delivery Partners defined beneficiaries; some employers reported to have received information about the activity but had not engaged with it. Therefore, the questionnaire asked a series of screening questions at the baseline stage to ensure that they were eligible to take part (i.e. their organisation had used and/or had input into the design of the EIF and GIF activities).

Follow-up interviews were broadly conducted with the person who had taken part in the baseline survey. In instances where this was not possible (for example if the original respondent had moved on to another company or had retired), beneficiary interviews were conducted with the most senior person at the site who had responsibility for dealing with the Delivery Partner about employee skills and training needs, and comparison group interviews were conducted with the relevant person at the site who was dealing with staff skills and training needs.

Interview booking and datasheets

The CATI script guided telephone interviewers to book a suitable interview time rather than completing the surveys on the spot, although the latter option was available to respondents. In doing so, interviewers were able to send a confirmation email to respondents, which contained a web link to a short datasheet. The datasheet contained some key questions from the survey; its purpose was the enable respondents to look up the information beforehand and provide more accurate responses to the survey questions. There were two datasheets:

- An ‘enterprise’ version which collected data on respondents’ organisation as a whole. Single site organisations and those engaging in EIF and GIF across the organisation as a whole were sent this version to use.

- An ‘establishment’ version. Multi-site organisations engaging in EIF and GIF at a specific site only were sent this version to use.

Response rates

A breakdown of response rates is provided in table 5 below:

Table 5 – Response rates

	Baseline stage		Follow-up stage	
	Total sample used (N)	Total sample used (%)	Total sample used (N)	Total sample used (%)
Completed/partial	3,839	32	1,901	61
Refusal	984	8	194	6
Unknown outcome	2,167	18	668	21
Ineligible	3,715	31	-	-
Dead numbers	1,471	12	375	12
Total sample	12,176	100	3,138	100
Unadjusted response rate		**32**		**61**
Adjusted response rate		**56**		**77**

Response rates were monitored throughout fieldwork and, whenever it appeared likely that the loaded sample was close to being exhausted, additional sample was released.

The following approaches were adopted to maximise response rates:

- Each piece of sample was called a minimum of 12 times, until an interview was achieved, a refusal given or information obtained to make a judgment on the eligibility of that contact.
- If no contact was made after 15 attempts, the lead was labelled as unavailable. In some cases, leads were called more than 20 times (e.g. when respondents had requested to be called back).
- Each piece of sample was called at different times of the day, throughout the week, to make every possible attempt to achieve an interview. Evening interviews were also offered if the respondent preferred these times.
- Midway through follow-up fieldwork, a telephone matching process (using addresses and postcodes) was completed on unusable or incorrect telephone numbers, in order to boost the proportion of usable leads. In total, 461 ‘bad numbers’ were identified; the automatic telephone tracing was able to successfully match 69 new contact numbers. An additional manual match (through publically available, online search tools) of the remaining leads identified 29 new telephone numbers.
- A reminder email was sent to the remaining active sample midway through follow-up fieldwork. This email reiterated the purpose of the research, and explained that the telephone interviewers had been attempting to contact the lead about the research.

Overall, 183 leads refused to take part in the follow-up survey. At the end of fieldwork, the unadjusted response rate was 61% overall. A breakdown of response rates is shown in table 6 below:

Table 6 – Follow-up survey responses

	Sampled	Achieved interviews	Unadjusted response rate
Beneficiaries	1,525	929	61%
Comparison ESS	1,613	972	60%
Total	**3,138**	**1,901**	**61%**

A.6 Data processing

Editing and data validation

The need for post-fieldwork editing to remove outliers (e.g. in estimations of employment, turnover, sales and profit levels) was minimised by incorporating a number of logic checks in the CATI script, which checked the consistency and likely accuracy of answers. Where inconsistent answers had been given, the script would not allow the interviewer to proceed until respondents changed their answer or corrected answers at earlier questions.

Coding

The verbatim responses to open-ended and "other – specify" questions were coded manually by Ipsos MORI's coding team and, where possible, assigned to codes in the existing code frame from the baseline survey. It was also possible for new codes to be added where enough respondents – 10 per cent or more – had given a similar answer outside of the existing code frame. The accuracy of the coding was verified by the Ipsos MORI project team, who checked and approved each new code proposed.

Weighting

Weighting was not applied to the employer data due to a lack of reliable information about employer beneficiaries such as size and industry sector.

B Programme Impact Analysis

This chapter details the approach for the quantitative impact analysis, which incorporated three stages:

1. a matching exercise to make the beneficiary and comparison group samples as similar as possible in terms of baseline characteristics;
2. difference-in-differences calculations for all outcomes on the matched data; *and*
3. statistical tests on these calculations to identify any statistically significant impacts.

This three-stage analysis was carried out on the overall sample, and then all three stages were repeated for each subgroup selected at the outset of the analysis.

B.1 Deriving outcome measures from survey data

The following table outlines the outcomes measured through the surveys and how these were specified in terms of the analysis. As aforementioned, other intended outcomes from EIF and GIF activities could not be easily observed through a survey approach, so were explored in the qualitative interviews.

Initially, these outcomes were analysed using mean scores from the survey results (e.g. mean number of employees trained). However, this initial analysis did not take scale effects into account. As an illustration, using mean scores assumes that a business moving from training 4 out of 100 staff at the baseline to 5 out of 100 at the follow-up has experienced the *same improvement* as a business moving from training 4 out of 10 staff to 5 out of 10. In reality, it is reasonable to think that impact on the latter business is much more important as a proportion of their overall staffing levels.

To account for scale effects, the survey results were transformed and reanalysed, both as percentage amounts and as logs where appropriate. These scale transformations are also detailed in the following table, while full difference-in-difference scores for transformed and non-transformed outcomes are included in section B.8.

Table 7 - Outcome specifications and scales

Outcome	Specification (for calculating baseline and follow-up mean scores)	Scale transformations
Increase in training volumes	Number of employees receiving on-the-job or off-the-job training arranged or funded by the business in last 12 months, excluding instances where 75% or more of this training was induction or health and safety training	• log transformation • as a % of all employees[17]
More vacancies	Number of vacancies posted in last 12 months	• log transformation • as a % of all employees
More vacancies filled	Number of vacancies filled in last 12 months	• log transformation • as a % of all vacancies
Fewer hard-to-fill vacancies	Number of hard-to-fill vacancies in last 12 months	• log transformation • as a % of all vacancies
Apprenticeship places created	Number of apprenticeship vacancies in last 12 months	• log transformation • as a % of all employees • as a % of all vacancies
More apprentices	Number of apprenticeship vacancies filled in last 12 months	• log transformation • as a % of all apprenticeship vacancies
Fewer hard-to-fill apprenticeship vacancies	Number of hard-to-fill apprenticeship vacancies in last 12 months	• log transformation • as a % of all apprenticeship vacancies
Increased investment in training	Total spending on training in last tax year, excluding instances where 75% or more of this training was induction or health and safety training	• log transformation • mean per-employee £ amount (including those not trained) • mean £ amount per each employee receiving training
Reduced staff turnover	Number of individuals who have left the business over last 12 months, but not as direct result of redundancy or downsizing	• log transformation • as a % of all vacancies
Reduced recruitment costs	Total spending on recruitment, advertising, agency and search fees over the last 12 months	• log transformation • mean per-vacancy £ amount
Increased sales[18]	Approximate turnover for last tax year	• log transformation
Increased profitability[18]	Pre-tax profit or loss in last tax year (collected in survey as a proportion of turnover)	• mean per-employee £ amount

[17] Here and elsewhere, calculations with percentage transformations were carried out twice – once including all data, and once excluding responses over 100% (these were legitimate responses where, for example, many staff had left the business across the course of the year and therefore the business had ended up training more than its current number of staff).
[18] These outcomes were only calculated for non-public sector businesses.

Outcome	Specification (for calculating baseline and follow-up mean scores)	Scale transformations
Increased productivity[18]	Approximate turnover for last tax year, as a proportion of the number of employees	• log transformation • mean per-employee £ amount (N.B. no transformation was required here as productivity is inherently scaled by staff size)
Better-qualified staff	Number of employees receiving on-the-job or off-the-job training arranged or funded by the business in last 12 months, towards a nationally recognised qualification	• log transformation • as a % of all employees
Better use of staff skills or qualifications	Number of employees who have both qualifications and skills more advanced than required for their role, over past 12 months	• log transformation • as a % of all employees
Proficiency of staff	Number of employees perceived to be fully proficient in their role, over past 12 months	• log transformation • as a % of all employees
Increase in training intensity	Average number of days of training arranged for each employee receiving training, on-the-job or off-the-job, excluding instances where 75% or more of this training was induction or health and safety training	• log transformation • mean number of days per employee (including those not trained) • mean number of days per each employee receiving training (i.e. no transformation of the existing scale)

B.2 Contextual variables

In addition to carrying out impact analysis on the outcome measures, difference-in-difference calculations were also done on several contextual variables to explore whether the *nature* of the training arranged or funded by beneficiaries had changed, relative to the comparison group. Specifically, these measured whether beneficiaries were more or less likely to have done any of the following as a result of EIF and GIF participation:

- on-the-job training;
- off-the-job training;
- training at different levels (i.e. levels 1 to 4); *or*
- training through different types of provider (i.e. private, non-profit, higher education, further education and self-delivered training)

B.3 Subgroups

Each stage of impact analysis was carried out on overall sample of beneficiaries, and then repeated for subgroups selected at the outset of the evaluation. These included:

- activity type (since the logic model suggested that certain impacts might be more prevalent for certain activities, e.g. apprenticeship-related impacts more prevalent for apprenticeship brokerage activities);
- Delivery Partner (since different Delivery Partners received different levels of funding);

- size of business (since the feasibility study indicated that EIF and GIF activities were especially intended to support SMEs); *and*
- length of programme use (essentially a subgroup excluding beneficiaries that participated in EIF and GIF activities before the majority of programmes started).

In some cases, sample sizes were too small to be feasible for subgroup analysis.[19] The following subgroups were ultimately used:

- Employment Brokerage
- Apprenticeship Brokerage
- Skills Diagnostics
- Training Brokerage
- Networks
- Two Delivery Partners with the largest sample sizes
- small establishment (exposed to activities at site level and had 10 to 49 employees)
- medium establishment (exposed to activities at site level and had 50 to 249 employees)
- SME establishment (exposed to activities at site level and site had under 250 employees)
- first activity used (according to the respondent) after April 2013, i.e. within one year before the baseline survey

B.4 Matching approach

Firms self-selected to participate in EIF and GIF activities. As a consequence, there may be systematic differences between beneficiaries and the comparison group of non-participating firms. If these differences are correlated with outcomes, they may distort estimates of the impact of the EIF and GIF schemes.

To account for differences in observable pre-engagement characteristics (measured at the baseline survey, or included in the baseline sample information) between beneficiaries and the comparison group samples, both samples were matched using Propensity Score Matching (PSM). PSM generates a predicted probability, the propensity score, that an establishment or enterprise in the comparison group would have taken part in EIF and GIF activities. This is considered a standard technique for matching samples in impact evaluations.[20]

[19] As some businesses participated in EIF and GIF activities at the enterprise level, rather than the establishment level, two sets of size subgroups were created based on how the business participated. For instance, if staff across multiple offices were exposed to an EIF and GIF activity, they were included in the enterprise size subgroups. However, the enterprise-level subgroups were too small to analyse.

[20] Alternatives to PSM would be to model the data using logistic regression or random effects models. The impact of EIF and GIF activities on outcomes would be tested directly from the models. The models would include baseline characteristics to control for sample differences between beneficiaries and the comparison group. The advantages of using PSM are that it allows for more accessible results (they can be presented in simple tables or charts) and that it requires simpler statistical tests on the matched samples than alternatives.

The matching exercise involved two sub-steps:

- Firstly, a logistic regression was used to identify the pre-engagement characteristics that varied significantly between beneficiaries and the comparison group. The variables considered for inclusion in the logistic regression are covered in the next section.

  Only pre-engagement characteristics that were observed to be significantly different between beneficiaries and the comparison group were retained in the final model (non-statistically significant characteristics have little effect on the propensity scores). This model was used to generate the propensity scores for each respondent in the comparison group sample.

- The second sub-step was to match the two samples using the propensity scores. The scores can be considered as a means of summarising the important pre-engagement characteristics in the two samples, so the matching aims to make the two samples as similar as possible in terms of these characteristics.

The kernel method was used to match the two samples[21]. This method matches each comparison group respondent to all beneficiary respondents. The comparison group respondents were weighted according to how closely they resembled the entire group of beneficiary respondents, based on their propensity score. Comparison group respondents who were a better match received a relatively higher weight. This method ensures that the profiles of the two groups, beneficiaries and the weighted comparison group, match as closely as possible.

B.5 Matching variables

Matching variables aimed to make the comparison group more similar to beneficiaries in terms of business environment, organisational structure, organisational characteristics and baseline outcomes. The following table outlines the variables included in the PSM, and the rationale behind their inclusion.

Table 8 - Matching variables and rationale for inclusion

Variable	Rationale
Business environment variables	
Region	There is substantial regional variation in the nature of skills supply/skills shortages variables, which will influence participation rates and the outcomes of interest, as those facing more acute skills shortages may have stronger incentives to train their workforce.
Standard Industrial Classification (SIC)	EIF and GIF activities were targeted broadly on a sectoral basis through the Sector Skills Councils, so there is a strong a-priori reason to believe that participation rates will vary by sector. At the same time, the nature and level of skills shortages and gaps, importance of poaching externalities (and consequently willingness to invest in training), and potential returns that might accrue from training will also vary by sector.

[21] Alternative methods of PSM include one-to-one or one-to-many matching. These methods match each individual beneficiary respondent to an individual comparison group respondent with the closest propensity score. They require a very large comparison group sample – much larger than the beneficiary sample – to achieve a good match. They also involve discarding any comparison group respondents that are not matched to a beneficiary respondent. While these methods can be appropriate in evaluations where the control group is pre-selected to be similar to profile of beneficiaries, and sample sizes are very large, they are not appropriate for this evaluation, where beneficiary and comparison group samples are similar in size. It is more efficient to use kernel matching to make use of every comparison group respondent.

Variable	Rationale
Organisational structure variables	
Whether the organisation was single site or multisite	Firms with employees spread across multiple sites may find it more difficult to develop practical or cost-effective training solutions (as economies of scale may be more difficult to find). Other things being equal, a firm whose employees are spread over multiple sites may also encounter greater disruption costs as a consequence of releasing staff for training. These issues may lead to lower rates of engagement with the schemes, as well as to reduced training expenditure.
Number of employees (at the site and across the UK)	Firms with more employees are expected to have the greater organisational 'slack' to invest the resources required to engage with the programme, as well as greater flexibility to release staff for training without disrupting production.
Whether the organisation was public, private or charitable	Public and charitable organisations face a different set of organisational objectives and incentives to train in comparison to private firms, which is anticipated to influence both the decision to engage as well as the outcomes of interest.
Occupation breakdown of employees	Firms with a high proportion of their workforce in occupations requiring high levels of skill or experience are likely to have stronger incentives to train, as well as engage with the EIF and GIF schemes, than firms less dependent on skills that cannot be straightforwardly obtained from the labour market.
Number of full-time and part-time employees	The returns to training might reasonably be expected to be higher for full-time than for part-time staff.
Organisational characteristics and baseline outcomes	
Staff turnover	There is an ambiguous relationship between staff turnover and the outcomes of interest. On the one hand, firms with higher rates of staff turnover might be reasonably expected to earn lower returns to training (for example, due to greater poaching externalities). On the other hand, firms with higher staff turnover rates might also seek to use training as a retention mechanism (i.e. to achieve lower staff turnover than they might have otherwise faced).
Whether the organisation has a training plan in place	Participation in EIF and GIF activities and the outcomes of interest are expected to be positively correlated with measures of how far training plans are in place amongst the firms involved.
On-the-job and off-the-job training activity	Companies already engaged in training might be more likely to participate in further workforce development activities as well as being more likely to be engaged in the EIF and GIF schemes.
Productivity	The relationship between productivity and participation in the programme is ambiguous. More productive firms may be less inclined to engage with the training infrastructure concerned, since they are not facing a competitive disadvantage that might motivate them to incur the costs involved. However, more productive firms may also be more active in trying to maintain that advantage through training (which would work in the other direction).
All other baseline outcome variables	Initial modelling did not include the baseline outcome variables (e.g. number of apprentices at the baseline). However, this led to matched beneficiary and comparison group samples that still differed substantially in terms of some baseline outcomes, so these were added to the model.

B.6 Comparison of matched and unmatched samples

The PSM approach improved the comparability of the beneficiary and comparison group samples, but it cannot eliminate the differences between the two samples. As the following table shows, the profiles of the matched samples were much closer than the unmatched samples, but there were still differences (e.g. beneficiary businesses typically started out with a much higher turnover at the baseline than comparison group businesses).

Table 9 - Baseline outcomes for matched and unmatched samples

Outcome	Mean score at baseline		
	Beneficiaries	Matched comparison group	Unmatched comparison group
Number of employees trained	144	106	35
Number of days training per employee trained	6	6	6
Investment in training	£34,317	£16,670	£7,083
Number of qualified staff	29	22	10
Number of staff over-skilled/overqualified for their jobs	109	116	109
Number of staff proficient in their jobs	285	298	173
Number of vacancies	14	17	6
Number of vacancies filled	18	21	9
Number of hard-to-fill vacancies	5	3	2
Number of apprenticeship vacancies	2	1	0
Number of apprenticeship vacancies filled	5	2	2
Number of hard-to-fill apprenticeship vacancies	1	0	0
Recruitment costs	£6,783	£8,665	£5,757
Number of staff leaving in last 12 months	12	11	4
Turnover	£13,174,435	£6,019,891	£3,559,149
Profit as a percentage of turnover	14.20%	7.87%	7.22%
Productivity	£250,710	£146,313	£137,332

B.7 Difference-in-difference calculations

Once the data were matched, the differences between the baseline and follow-up survey outcome measures were calculated for both beneficiaries and the comparison group. Statistical t-tests were then used to highlight whether the *difference between* these two differences was statistically significant.

Full difference-in-difference results for the overall and subgroup samples are in section B.8.

Dropped respondents and common support

Some respondents were dropped from the difference-in-difference calculations due to lack of "common support". Common support is when beneficiary and comparison group respondents have a similar profile.

If a particular respondent has a set of characteristics that makes it very different to the rest of the sample, this respondent is said to be "off the common support" and is dropped from the analysis to make it more effective. This can happen for both beneficiary and comparison group respondents. A comparison group respondent can be so different that it only serves to make the overall weighted group look less like the beneficiaries' sample. Or a beneficiary respondent can be so different that their inclusion results in a very extreme set of comparison group weights. Extreme weights increase the amount of variance in the sample, which reduces the power of the statistical significance testing.

Respondents off the common support are typically dropped in impact evaluations to ensure the participant and comparison group samples are as similar as possible, so that the impact analysis compares like with like.

Another reason for dropped respondents is item non-response. This is where a responding workplace has answered "don't know" to one or more of the survey questions used to derive outcome measures, either at the baseline and follow-up surveys. In these cases, it is not possible to carry out the difference-in-difference calculation for that respondent (although they can still be used for other outcome measures).

B.8 Impact analysis tables

Some variables were heavily skewed. These variables were transformed to offset the skew and to aid interpretation. Log transformations were used to reduce the tail of the distribution and bring outliers closer to the rest of the data[22].

Outcome short description	Scale used	Y1 score	Y2 score	Y1 score	Y2 score	p-value	Statistically significant impact?
Number of employees trained	Mean number (i.e. no transformation of scale)	144.0	83.3	105.8	90.9	0.112	
Number of employees trained	As a % of all employees (all exposed to activities)	46.7%	46.4%	51.5%	39.0%	0.003	Yes
Number of employees trained	As a % of all employees (excluding answers >100%)	43.0%	40.5%	44.1%	33.3%	0.034	Yes
Number of employees trained	Log transformation	2.26	2.10	2.36	2.02	0.132	
Number of days spent on training	Mean number (i.e. no transformation of scale)	5.9	5.4	6.0	4.9	0.574	
Number of days spent on training	Mean number of days per every employee receiving training	5.9	5.4	6.0	4.9	0.574	
Number of days spent on training	Log transformation	1.32	1.26	1.30	1.16	0.389	
Investment in training	Mean £ amount (i.e. no transformation of scale)	£34,317.09	£49,460.18	£16,670.03	£23,102.48	0.567	
Investment in training	Mean per-employee £ amount (including employees not receiving training)	£345.62	£470.00	£212.31	£518.98	0.529	
Investment in training	Mean £ amount per every employee receiving training	£1,052.95	£1,238.90	£644.60	£1,353.44	0.329	
Investment in training	Log transformation of total investment in training	6.2	6.2	5.6	5.7	0.654	
Providing off-the-job training	% of those providing training	78%	70%	80%	69%	0.383	
Providing on-the-job training	% of those providing training	77%	76%	72%	74%	0.602	
Providing Level 1 training	% of those providing training	25%	23%	20%	20%	0.805	
Providing Level 2 training	% of those providing training	66%	54%	48%	46%	0.110	
Providing Level 3 training	% of those providing training	63%	69%	53%	49%	0.114	
Providing Level 4 training	% of those providing training	53%	55%	60%	55%	0.297	
Training through a private training provider	% of those providing training	88%	87%	83%	86%	0.305	
Training through a non-profit training provider	% of those providing training	39%	39%	41%	39%	0.772	
Training through a FE training provider	% of those providing training	62%	58%	42%	41%	0.547	

[22] Log transformations can be interpreted as the per cent increase in the beneficiaries group as the result of the programme. For example, the productivity figures for beneficiary cases are 10.9 and 11.2, for baseline and follow-up respectively. The corresponding values for the comparison group are 10.8 and 11.0. This means the difference is 0.1 ((11.2-10.9)-(11.0-10.8) =0.1). If significant, this would be interpreted as a ten per cent improvement in productivity for beneficiaries.

Training through a HE training provider	% of those providing training	39%	39%	35%	38%	0.634	
Providing their own training	% of those providing training	87%	82%	85%	78%	0.657	
Number of qualified staff	Mean number (i.e. no transformation of scale)	29.3	33.4	22.0	20.5	0.750	
Number of qualified staff	As a % of all employees (all exposed to activities)	18.7%	16.8%	16.2%	16.0%	0.541	
Number of qualified staff	As a % of all employees (excluding answers >100%)	17.8%	16.5%	12.4%	14.7%	0.084	
Number of qualified staff	Log transformation	1.68	1.60	1.43	1.40	0.641	
Number of staff overskilled/overqualified for their jobs	Mean number (i.e. no transformation of scale)	108.6	78.2	115.9	72.8	0.896	
Number of staff overskilled/overqualified for their jobs	As a % of all employees (all exposed to activities)	20.9%	23.5%	17.4%	19.5%	0.823	
Number of staff overskilled/overqualified for their jobs	As a % of all employees (excluding answers >100%)	20.9%	23.5%	17.4%	19.5%	0.823	
Number of staff overskilled/overqualified for their jobs	Log transformation	0.21	0.24	0.17	0.19	0.823	
Number of staff proficient in their jobs	Mean number (i.e. no transformation of scale)	284.8	251.6	298.0	249.3	0.890	
Number of staff proficient in their jobs	As a % of all employees (all exposed to activities)	87.2%	88.2%	88.2%	90.9%	0.273	
Number of staff proficient in their jobs	As a % of all employees (excluding answers >100%)	87.2%	88.2%	88.2%	90.9%	0.273	
Number of staff proficient in their jobs	Log transformation	0.87	0.88	0.88	0.91	0.273	
Number of vacancies	Mean number (i.e. no transformation of scale)	14.0	22.8	17.2	16.6	0.310	
Number of vacancies	As a % of all employees (all exposed to activities)	15.5%	39.2%	15.4%	23.8%	0.556	
Number of vacancies	As a % of all employees (excluding answers >100%)	14.6%	12.8%	14.8%	13.4%	0.711	
Number of vacancies	Log transformation	1.39	1.35	1.49	1.43	0.731	
Number of vacancies filled	Mean number (i.e. no transformation of scale)	17.7	31.4	20.7	22.4	0.409	
Number of vacancies filled	As a % of total vacancies	87.7%	88.1%	87.0%	87.7%	0.902	
Number of vacancies filled	As a % of total vacancies (excluding answers >100%)	87.6%	87.5%	87.2%	85.7%	0.639	
Number of vacancies filled	Log transformation	1.83	1.81	1.92	1.93	0.605	
Number of hard-to-fill vacancies	Mean number (i.e. no transformation of scale)	4.8	3.1	3.1	3.1	0.342	
Number of hard-to-fill vacancies	As a % of total vacancies	28.7%	28.0%	23.9%	22.4%	0.767	
Number of hard-to-fill vacancies	As a % of total vacancies (excluding answers >100%)	28.7%	27.9%	23.9%	22.4%	0.827	
Number of hard-to-fill vacancies	Log transformation	0.79	0.76	0.75	0.69	0.660	
Number of Apprenticeship vacancies	Mean number (i.e. no transformation of scale)	1.7	2.7	0.7	1.0	0.425	
Number of Apprenticeship vacancies	As a % of all employees (all exposed to activities)	3.2%	2.3%	1.5%	2.7%	0.015	Yes

Number of Apprenticeship vacancies	As a % of total vacancies	15.1%	9.4%	12.4%	10.6%	0.111	
Number of Apprenticeship vacancies	As a % of all employees (excluding answers >100%)	3.2%	2.3%	1.5%	2.7%	0.015	Yes
Number of Apprenticeship vacancies	Log transformation	0.48	0.44	0.29	0.38	0.103	
Number of Apprenticeship vacancies filled	Mean number (i.e. no transformation of scale)	5.0	10.1	2.3	3.0	0.231	
Number of Apprenticeship vacancies filled	As a % of total Apprenticeship vacancies	87.8%	83.9%	95.4%	96.7%	0.342	
Number of Apprenticeship vacancies filled	As a % of total Apprenticeship vacancies (excluding answers >100%)	87.8%	83.9%	95.4%	96.7%	0.342	
Number of Apprenticeship vacancies filled	Log transformation	1.22	1.22	1.10	1.23	0.184	
Number of hard-to-fill Apprenticeship vacancies	Mean number (i.e. no transformation of scale)	1.3	0.7	0.2	0.3	0.200	
Number of hard-to-fill Apprenticeship vacancies	As a % of total Apprenticeship vacancies	26.5%	26.7%	13.8%	17.5%	0.689	
Number of hard-to-fill Apprenticeship vacancies	As a % of total Apprenticeship vacancies (excluding answers >100%)	26.5%	26.7%	13.8%	17.5%	0.689	
Number of hard-to-fill Apprenticeship vacancies	Log transformation	0.36	0.33	0.14	0.20	0.439	
Recruitment costs	Mean £ amount (i.e. no transformation of scale)	£6,782.62	£7,774.96	£8,665.10	£7,495.21	0.188	
Recruitment costs	Mean £ amount per vacancy	£736.08	£1,012.60	£1,074.69	£1,017.99	0.266	
Staff turnover	Mean number (i.e. no transformation of scale)	12.3	19.8	10.6	18.5	0.973	
Staff turnover	As a % of all employees (all exposed to activities)	9.8%	29.3%	10.9%	10.9%	0.206	
Staff turnover	As a % of all employees (excluding answers >100%)	8.9%	11.2%	9.6%	9.5%	0.048	Yes
Staff turnover	Log transformation	0.99	1.03	1.09	1.08	0.551	
Turnover	Mean £ amount (i.e. no transformation of scale)	£13,174,435	£20,365,475	£6,019,891	£9,168,785	0.433	
Turnover	Log transformation	13.9	14.2	13.6	13.9	0.945	
Profitability	Mean number (i.e. no transformation of scale)	£14.20	£9.57	£7.87	£7.35	0.579	
Profitability	Mean per-employee £ amount	£14.20	£9.57	£7.87	£7.35	0.579	
Productivity	Per-employee turnover £ amount	£250,710	£394,277	£146,313	£205,116	0.679	
Productivity	Log transformation	10.9	11.2	10.8	11.0	0.700	

C Design of qualitative research

C.1 Purpose of the qualitative strand

The purpose of baseline qualitative research was to:

- Understand how EIF and GIF had influenced how Delivery Partners worked and their strategic approach, including synergies and interdependencies between projects and any cumulative impact;
- Explore types of innovation associated with different types of project and investment and any consequences for outcomes and sustainability;
- Provide depth/explanation on why any variations in intervention impact existed and any explanation offered by sectoral and policy contexts;
- Understand the wider indirect impacts of the investment programmes, beyond direct employer investment in training including softer impacts on attitudes, patterns of collaboration and engagement in other initiatives, spin offs for Delivery Partners, employers and stakeholders;
- Explore approaches to sustainability and conditions for success, including the quality of the offer and how this was perceived by employers.

At the follow-up stage, the focus of the qualitative strand was to provide an explanation for the impact findings, and an understanding of how the observed impacts had been realised or achieved. Specifically, it sought to:

- Understand why no overall impact was observed overall, except on training volumes of participant firms;
- Explore why some firms reported no impact;
- Provide evidence for the wider factors that explained the presence of impact; *and*
- Understand the nature and types of impact reported by firms by size of firm and lever.

The qualitative research comprised:

- Interviews with strategic and operational staff at nine Delivery Partners at both baseline and follow-up phase, to investigate the full range of activities developed and delivered by them. The nine Delivery Partners were: Cogent, Cornwall Marine Network, Creative Skillset, EU Skills, People First, SEMTA, Skills for Logistics, Black Country Consortium and Lantra.
- High level consultations with key national stakeholders. At the baseline this included UKCES strategic staff, the Devolved Administrations and Skills Funding Agency. At the follow-up phase, interviews were conducted with UKCES fund managers for EIF and GIF.
- Interviews with 56 employer beneficiaries at the baseline and 52 employer beneficiaries at the follow-up phase across seven types of activities. Employers were purposively selected to include: SMEs and large businesses, and seven broad activities: Skills Diagnostics; Training Brokerage; Employment Brokerage; Apprenticeship Brokerage; Group training activities; and Networks. The follow-up phase also included ten longitudinal interviews with employers.

The baseline fieldwork took place between 10 July and 30 November 2014. Follow-up fieldwork took place between 10 September 2015 and 12 January 2016

C.2 Sample design

The sampling approach differed between the baseline and follow-up fieldwork.

The baseline study focussed on case studies around project design, development, delivery and management at Delivery Partner level. At each of the nine chosen Delivery Partner, interviews were conducted with Delivery Partner staff, up to five employers contributing to design and benefiting from the projects together with up to two to three stakeholders contributing to project management/delivery including training providers and third sector organisations. These were supplemented by ten interviews with national stakeholders responsible for the policy design of EIF and GIF. The initial selection of Delivery Partners for the qualitative research was driven primarily by selecting those with the highest volumes of investment from EIF and GIF funds, and then by adding two further case studies to get a wider spread of sectors and types of project levers. The selection criteria included:

- Size and scale of project activity to include a range of projects receiving substantial proportions of investment;
- Type of intervention to ensure a mixture of different types of levers were covered;
- Balance of projects funded through EIF and GIF;
- Balance of projects across manufacturing and service sectors and those more and less well established traditions of employer action on skills;
- UK-wide versus location-specific projects; *and*
- A range of Delivery Partners to include SSC and non-SSC leads.

At the follow-up stage, the sample design for employer beneficiaries changed to reflect the focus on explaining the results of the impact analysis. Employer beneficiaries from across the entire project portfolio were divided into those who self-reported impact or no impact, in order to explain variations in the firm-level outcomes identified in the impact analysis. Quotas were set to achieve 20 employer interviews per activity of which 10 were SMEs reporting both hard and soft impact, five were large firms also reporting impact and five were firms of a mix of sizes reporting no impact.

Fieldwork was paused half way through to identify the key trends and usefulness of data that employers using different activities were able to provide. After discussion, it was decided to focus the remaining interviews on three activities which were under-represented: Training Brokerage, Networks and GTAs had fewer achieved interviews relative to Apprenticeship Brokerage and Employment Brokerage activities. It was also decided that no further interviews would be conducted with employers who had used Skills Diagnostic interventions because, as in Year 1, employer recall of these interventions was poor due to the light touch nature of the activity which were typically delivered in combination with other interventions that were more tangible and easier to recall.

Follow-up interviews were also completed with staff from eight Delivery Partners (one DP had closed so could not be recontacted), predominantly with participants from the baseline, in order to understand issues around project sustainability.

Two stakeholder interviews with UKCES staff were also conducted to gain their perspectives on the overall impact of EIF and GIF.

The distribution of interviews across projects and Delivery Partners is shown in table 10 below. Where the breakdowns do not equate to the total, this is because some employers had engaged in more than one activity.

Table 10 – Achieved interviews

	Baseline stage[23]	Follow-up stage
Stakeholders[24]	52	14
Skills Diagnostic	11	0
Training Brokerage	15	9
Employment Brokerage	12	11
Apprenticeship Brokerage	16	12
Group Training Activities (GTAs)	1	7
Networks	10	13
Developing employer standards	7	0

C.3 Fieldwork preparation

Prior to fieldwork phases, an invitation letter for DPs and opt-out and briefing letters for all employers were scripted. These (re)introduced the evaluation and outlined the scope of the interview in order to familiarise participants with the process and allowed them to identify the most appropriate person(s) within the organisation to speak to a researcher.

Bespoke versions of employer opt-out and briefing letters were drafted according to whether employers were follow-ups from Wave One, or new participants in Wave Two. Employers were offered the opportunity to opt out of the evaluation process via email or telephone, or to get in contact to ask any further questions.

An experienced recruiter at IES handled fieldwork recruitment, screening employers before arranging interviews to check recall of the relevant target lever type.

[23] Some beneficiaries at the baseline stage had taken part in more than one intervention.
[24] Stakeholder interviews were conducted with: staff of Delivery Partners, stakeholders from other organisations involved in delivering the projects, and a national stakeholder.

C.4 Topic guide development

Three discussion guides were developed: one for Delivery Partners (DPs), one for national stakeholders and one for employer beneficiaries, all of which were signed off by research managers at UKCES.

Discussions with Delivery Partners at the baseline stage covered the following domains:

- Project design, background research, application process;
- Project governance, delivery and management including type of innovation and risks addressed;
- Project evaluation, lessons learned and outcomes for Delivery Partners and employers; *and*
- Future plans for projects.

Discussions with Delivery Partners at the follow-up stage covered the following domains:

- Project status and sustainability (including the difference in status of different project strands, and how any on-going activity was supported);
- Changes in project delivery (e.g. model of delivery, pricing structure, intended or actual audience); *and*
- Outputs, outcomes and impacts.

DP interviewees were also asked to suggest where employers may be particularly well placed to comment on engagement in on-going activity.

Baseline interviews with employers explored:

- Their initial motivations for engagement in EIF and GIF;
- Expectations of benefits;
- how they became aware of the projects;
- Involvement in project management;
- Perceptions of project delivery;
- future intentions about project use; *and*
- Benefits and impacts.

Follow-up interviews with employers were used to track progress in time and focused particularly on different outcome/impact measures, structured around questions raised by the impact analysis and other key domains of interest, providing reasons for patterns identified.

The topic guide was designed to be used flexibly according to the nature of employers' engagement with the level and whether they were follow-up or new interviewees. Areas for discussion covered:

- Organisational skills needs and training approaches, including barriers to investment in training, engagement with industry levies and/or externally funded training.
- Motivations and drivers for EIF and GIF involvement [new interviewees only];
- Expectations of EIF and GIF involvement;
- Outcomes and impacts, separated into:
    - Changes in approaches to training, training quality and training investment;
    - Other outcomes and impacts (e.g. HR metrics, competitiveness, business outcomes);
- Wider impacts and sustainability (including value for money, collaboration and co-investment); *and*
- Overview of EIF GIF experiences.

C.5 Data analysis

The data analysis phase made use of Framework analysis via Excel 2010. This approach used researcher-driven content analysis. To structure data in order to ensure this, an Excel Framework was devised based on the discussion guide. This further allowed findings to be segmented and compared by key domains of interest including size of business, presence/absence of hard impact measure and lever. The research team then met to discuss findings in relation to the research questions and identify emerging patterns and themes. This was supplemented by detailed field notes compiled by each team member to ensure consistent, rigorous and systematic analysis.

The UK Commission for Employment and Skills (UKCES) is a publicly funded, industry-led organisation providing leadership on skills and employment issues across the UK. Together, our Commissioners comprise a social partnership of senior leaders of large and small employers from across industry, trade unions, the third sector, further and higher eduction and across all four UK nations.

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