The 2010 European Social Fund Leavers Survey

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Executive Summary

- The aim of the 2010 ESF Leavers Survey is to assist in assessing the effectiveness of labour market interventions delivered under ESF. Telephone interviews were conducted with 7,500 people who had left an ESF project delivered under Priorities 2 and 3 of the Convergence Programme and Priorities 1 and 2 of the Competitiveness Programme during 2010. Not all approved projects were included in the survey due to the availability of participant data at the time the sample was drawn.

Who are the participants?

- Approximately 34% of respondents to the survey were aged 18-24, with this group accounting for 42% of respondents from Priority 2 of the Competitiveness Programme. This is compared with 17% among the wider population of working age.
- On entry to an ESF project, 30% of respondents had achieved levels of educational attainment that are equivalent to NQF level 3 or above. Levels of educational attainment are higher among respondents from Priority 3 projects, with 39% having achieved qualifications at NQF level 3 or above.
- Compared with the wider population in Wales, respondents to the ESF survey have relatively low levels of educational attainment prior to entry. Respondents are also less likely to suffer from long term illness. This can be attributed to the relatively young composition of the ESF sample.

Participating in ESF

- Approximately 60% of respondents were aware that ESF had helped to pay for their participation in an ESF project.
- The three main reasons provided by Priority 2 Convergence respondents for participation in an ESF funded project were to help them get a job (33%), to improve or widen their career options (19%) and to develop a broader range of skills (15%).
- The three main reasons provided by Priority 3 Convergence respondents for participation in an ESF funded project were to develop a broader range of skills (23%), to improve or widen career options (22%) and to develop more specialist skills (12%).

ESF and the Accumulation of Skills

- The most commonly cited skills acquired by respondents during their ESF project were communication skills (77%), team working skills (76%), organizational skills (75%) and problem solving skills (72%).

- Approximately 80% of respondents report that they gained some form of qualification through ESF. Twelve per cent of respondents undertake ESF projects that result in a qualification at the same level to that which they held prior to the intervention, whilst a further 12% of respondents achieve a qualification that was at a lower level. Eighteen per cent of respondents undertake an ESF project that results in a higher level qualification.
- By the time of the survey, the proportion of respondents with no qualifications declines from 10% to 5% as a result of qualifications achieved during and since ESF

Labour Market Transitions since ESF

- A majority of transitions out of unemployment and inactivity among Priority 2 respondents from the Convergence Programme occur either during or immediately following their participation in an ESF project.
- Forty four per cent of respondents from Convergence Priority 2 and Competitiveness Priority 1 experience a positive change in their economic activity status. However, approximately 45% of Convergence Priority 2 and Competitiveness Priority 1 respondents do not experience a change in their activity status.

Benefits of ESF

- Approximately 90% of respondents report that they feel more confident in their own abilities and 85% report that they feel better about themselves generally, following their participation in an ESF project.
- Among those in a job at the time of the survey that was not held prior to ESF, 22% report that their course was vital to them in terms of getting their current jobs.
- Among those not in employment at the time of the survey, approximately one in five report that they feel they have more chance of finding employment in the future as a result of participating in ESF.
- Respondents who gain additional qualifications through ESF are more likely to report that the intervention resulted in a positive impact. This finding is particularly evident where the qualification achieved was at the same or higher level than those held prior to ESF.

Impact of ESF

- Using statistical matching techniques, participation of the unemployed within an ESF project aimed at increasing participation in employment is associated with a 13-19% increase in the chance of gaining work compared to otherwise comparable people within the wider unemployed population.

Chapter 1: Introduction

2.1 ESF programmes and projects in Wales, 2007 – 2013

The two ESF Operational Programmes which are benefiting Wales for the programming period 2007 – 2013 are together providing around £1.25 billion[1] of investment, with almost 90% of this channelled through the West Wales and the Valleys Convergence Programme[2]. In total, they are expected to provide support to almost 300,000 individual participants – 267,500 under Convergence and 26,600 under Competitiveness – in other words, around 10% of the Welsh population. The interventions which are supported by the Programme are wide-ranging, though all relate to the investment in human capital. They include:

- Measures to prevent young people from *"falling out"* of mainstream education and overcoming barriers between education and employment (Convergence Priority 1, Themes 1 and 2);
- Active labour market measures for the unemployed (Convergence Priority 2, Theme 1 and Competitiveness Priority 1);
- Support to develop the employability of the economically inactive (Convergence Priority 2, Theme 1 and Competitiveness Priority 1);
- Preventative measures to reduce the risk of those in employment but with poor health from losing their jobs (Convergence Priority 2, Theme 2);
- Improving the skills of those already in work – with a particular focus on those with low skills but extending also to the provision of higher level skills to support the knowledge economy (Convergence Priority 3, Theme 1, Competitiveness Priority 2);
- Improving systems to identify and anticipate skills needs (Convergence Priority 3, Theme 2, Competitiveness Priority 2).

[1] At current exchange rates. The Programme allocations are set in Euro. See Reports to PMC June 2011– Papers PMC (11) 162 and PMC (11) 163.
[2] Convergence Programme - £1,113.1 million, Competitiveness £135.6 million

- Measures to tackle the gender pay gap and to promote gender equality (Convergence Priority 3, Theme 3, Competitiveness Priority 2);
- Investment in human resources within the public sector to improve public services (Convergence Priority 4).

Given the scale of the investment, it is clearly essential to evaluate the impact of measures supported by the Programmes. The 2010 ESF Leavers' Survey provides some of that evidence.

1.2 Overview of the 2010 ESF Leavers Survey

The aim of the 2010 ESF Leavers Survey is to assist in assessing the effectiveness of labour market interventions delivered under the ESF Convergence and Competitiveness Programmes. The over-arching objective of the survey is to understand the characteristics and outcomes of those participating in ESF projects, building on the experience of the 2009 Survey which was undertaken by the same team. To achieve this, a telephone survey was conducted during June and July 2011 among a group of people who were identified as having left an ESF project during 2010.

It should be noted that the sample interviewed was not drawn from all of the ESF projects which were underway during 2010. It was decided at the Inception stage that, due to the age profile of the participants in ESF Convergence Priority 1 projects, these projects should be excluded from the fieldwork. From the remaining projects across the two Programmes a sample was drawn from a total of 19 projects for which participant data were available. The composition of these projects is shown in Table 1.1 which also compares the number of projects represented in the Survey with the total number of projects approved in the relevant Priority as of June 2011[3].

[3] Reports to PMC June 2011– Papers PMC (11) 162 and PMC (11) 163.

Table 1.1: Overview of the ESF Survey Population and Achieved Samples

Programme and Priority	Convergence Priority 2	Convergence Priority 3	Competitiveness Priority 1	Competitiveness Priority 2
Number of projects covered in survey	7	7	3	2
Total number of projects as of June 2011	22	23	8	8
Administrative Records Supplied to the Research Team	14,959	8,766	294	2,374
Survey Responses	3,182	3,502	57	766

A file containing the details of over 26,000 individuals who left ESF projects during 2010 was provided to the research team by WEFO. Details of how the survey population and achieved sample is distributed across the four Priorities covered by the survey are also provided in Table 1.1. Full details of the survey methodology and the achieved sample are presented in Annex 1. The main remit of the survey was to achieve interviews with 7,500 participants from the ESF projects. To achieve a high response rate and hence maintain the quality of the information collected from the survey, not all of the administrative records supplied by WEFO were utilised during the course of the fieldwork. Following checks, of these approximately 22,000 were loaded on to the CATI interviewing system for inclusion in the survey.

Interviews were achieved with 7,507 ESF participants. Overall, expressed as a percentage of all records loaded on to the system, the response rate for the survey is 34%. Excluding those participants with no telephone numbers or where the number supplied was found to be incorrect or where it was not possible to contact the participant, the response rate increases to 47%. Excluding those who had no recall of participating in an ESF project (1,066 in total), the estimated response rate increases to 50%. For some Priorities, a single project accounted for a majority of the participants interviewed: in particular, one project accounted for 68% of the former participants in Convergence Priority 3 and 93% of participants in Competitiveness Priority 2 (although this in broad terms reflected their dominant share of all contact details provided). The report does not present research results at project level.

To assist in understanding the experiences and outcomes of participants on ESF projects the survey collected information on: the pre-entry characteristics of ESF participants; their motivations for participating in an ESF project; the skills acquired as a result of the intervention and details of the careers of respondents since completing the project, identifying both employment outcomes, `softer' benefits from learning (such as increased confidence) and entry in to further learning. The interviews included questions to explore participants' perceptions regarding levels of satisfaction with their courses, their awareness of ESF and perceptions of additionality i.e. did participants feel that they would have gained the same employment impact without intervention.

1.3 Structure of the Report

The remainder of the report is structured as follows. Chapter 2 provides an overview of the characteristics of respondents to the ESF survey, such as their demographic characteristics, prior educational attainment and economic circumstances prior to participating in an ESF project. Comparisons of the ESF sample with the wider population are also made. Chapter 3 considers the reasons given by respondents for undertaking an ESF course and the characteristics of those who withdraw early from ESF. Chapter 4 details the role of ESF in enhancing the skills of participants, both in terms of the types of skills gained and qualifications achieved. Chapter 5 describes the career patterns of respondents since leaving an ESF project. Chapter 6 provides a more detailed examination of their circumstances measured at the time of the survey, looking at current jobs held, earnings and the job satisfaction of respondents. Chapter 7 considers the benefits that respondents perceive themselves to have gained from undertaking an ESF project. Finally, Chapter 9 attempts to consider the effectiveness of ESF by comparing the career transitions made by respondents to the survey with those reported by a comparable group of people drawn from the Labour Force Survey. Chapter 10 concludes.

CHAPTER 2: Who are the participants?

Chapter Summary

- Approximately 34% of respondents to the survey were aged 18-24, with this group accounting for 42% of respondents from Priority 2 of the Competitiveness Programme. This is compared with 17% among the wider population of working age.
- On entry to an ESF project, 30% of respondents had achieved levels of educational attainment that are equivalent to NQF level 3 or above. Levels of educational attainment are higher among respondents from Priority 3 projects, with 39% having achieved qualifications at NQF level 3 or above.
- Compared with the wider population in Wales, respondents to the ESF survey have relatively low levels of educational attainment prior to entry. Respondents are also less likely to suffer from long term illness. This can be attributed to the relatively young composition of the ESF sample.

2.1 Introduction

The purpose of this chapter is to map the demographic and educational characteristics of the sample of ESF participants. Primarily, it provides a profile of the sample of 2010 leavers from ESF Convergence and Competitiveness projects in Wales and their experiences prior to their participation in these projects. We summarise their personal characteristics and their prior educational qualifications. We also report their career status – whether or not they were in employment prior to ESF and, where relevant, their occupations, contractual status and hours worked. Using national statistics, comparisons are also made with the characteristics of those in the wider population.

2.2 Personal characteristics of participants

Table 2.1 presents an overview of the personal characteristics of respondents to the 2010 ESF Leavers Survey, distinguishing between those respondents who participated in the different Priorities of the two Programmes. Overall, 51% of respondents to the survey were female, with the proportion of female respondents being higher among the respondents from Priority 3 under the

Table 2.1: Personal characteristics of participants

per cent of respondents

	Con P2	Con P3	Comp P1	Comp P2	Total
Gender:					
Male	57.5	42.0	59.7	48.2	49.3
Female	42.5	58.0	40.4	51.8	50.7
Age: (at time of survey)					
16 -18 yrs	11.1	2.7	0.0	4.7	6.5
19 - 21 yrs	13.1	18.1	12.3	24.4	16.6
22 - 24 yrs	6.0	13.7	14.0	12.8	10.3
16 - 24 yrs	*30.2*	*34.4*	*26.3*	*41.9*	*33.3*
25 - 30 yrs	*10.9*	*13.8*	*15.8*	14.1	12.6
31 - 40 yrs	18.7	18.3	21.1	17.4	18.4
41 - 54 yrs	26.5	27.1	31.6	20.6	26.2
55+ yrs	13.8	6.4	5.3	6.0	9.5
Ethnicity:					
White	98.7	97.3	89.5	96.0	97.7
Educational attainment prior to ESF					
None	14.6	7.3	15.8	4.8	10.2
NQF Level 1 or less	18.6	14.1	19.3	20.4	16.7
NQF Level 2	19.7	20.9	14.0	27.3	21.0
NQF Level 3	12.4	18.9	12.3	17.1	15.9
NQF Level 4 or above	9.9	19.7	24.6	9.5	14.6
Unspecified level	24.7	19.1	14.0	20.9	21.7
Long term limiting illness (at time of survey)					
Yes	26.2	11.8	31.6	9.8	17.9
No	73.8	88.2	68.4	90.2	82.2
Work limiting illness (at time of survey)					
Yes	17.4	5.1	28.1	3.7	10.3
No	82.7	95.0	71.9	96.3	89.7
Place of birth:					
Wales	81.4	76.8	71.9	69.5	78.0
Elsewhere in the UK	15.5	18.2	17.5	22.8	17.5
Outside UK	3.2	5.0	10.5	7.7	4.5
English as first language	93.5	86.8	87.7	93.3	90.3
Speak Welsh	21.1	32.2	12.3	15.9	25.6
Sample size	3,182	3,302	57	766	7,507

Convergence Programme (interventions primarily aimed at those in work), among whom 58% were female. Respondents from Priority 2 projects under the Competitiveness Programme are youngest, with 42% being aged 24 or under at the time they completed their project. Among both Programmes, participants in projects aimed at the in-work population are younger than participants aimed at those who are out of work. Projects under Priority 2 of the Convergence Programme have the highest proportion of respondents aged 55 and over (14%).

In terms of other characteristics, levels of educational attainment prior to undertaking an ESF project were higher among respondents within the two Priorities where interventions are aimed primarily at those in work. Within the Convergence Programme, almost 40% of Priority 3 respondents had achieved a qualification equivalent to NQF Level 3 or above compared with 22% among Priority 2 respondents. Eighteen per cent of respondents reported that they suffered from a long term illness. The overall rate of work limiting illness was 10%. The relatively high rates of ill-health exhibited among respondents from projects under Priority 1 of the Competitiveness Programme must be considered in context of the relatively small sample size achieved from the survey among this group. Nonetheless, across both Programmes rates of ill-health are higher among those Priorities where interventions are primarily aimed at those out of work. Only 2% of respondents are from a minority ethnic background, with 96% being born in the UK. Whilst a quarter of respondents speak Welsh, over 90% report that English is their first language.

2.3 Labour market circumstances of project participants prior to ESF

Many of the differences observed in the personal characteristics of ESF participants by Programme and Priority reflect differences in the groups being targeted and the nature of the interventions. The labour market circumstances of ESF participants immediately prior to their interventions are presented in Table 2.2. The largest difference between the two groups of respondents is the large majority of Priority 3 respondents under the Convergence Programme and

Priority 2 under the Competitiveness Programme who were in paid employment prior to participation in an ESF project (83% and 86% respectively), reflecting the specific targeting of the employed by these projects. In contrast, only 11% of Priority 2 respondents under the Convergence Programme and 7% of respondents from Priority 1 of the Competitiveness Programme were in paid employment prior to their participation in a project. Approximately two-thirds of both these groups were classified as unemployed prior to their participation in an ESF project. It should be noted that the definition of unemployment used in this survey relates to being out of work and looking for work and is not based on any information regarding the receipt of benefits.[4] These respondents may therefore not be registered as unemployed or in receipt of benefits aimed at the unemployed. Such definitional issues may explain why levels of economic inactivity derived from respondents to the survey are considerably lower then the targets set out for participation in these projects among the economically inactive.

In addition to asking respondents about their activity status immediately prior to commencing their ESF projects, respondents to the 2010 Survey were also asked to provide an overview of their working lives since completing full time education. Specifically, respondents were asked 'Since leaving compulsory education at age 16, which of the following best describes what you had been doing up to the point when you began your ESF funded course?'. The purpose of this question is to provide a more accurate understanding of the career histories of ESF respondents, and therefore their skills and employability, than that which can be provided by a 'snap shot' picture of their economic activity immediately prior to participating in an ESF project. Across all Priorities, 71% of respondents report that they had either been continuously in paid employment or had been in paid work for most of their time since completing full time education. Even among those projects generally aimed at those out of work, a majority of

[4] In contrast to the definition used in the Programmes which defines unemployed participants as those claiming Job Seekers Allowance. Economically inactive participants are defined by the Programmes as those out of work not claiming Job Seekers Allowance.

respondents report that their careers since full time education were typically characterised by being in paid employment, thus suggesting that the intended targeting of the Priorities on the long term unemployed and economically inactive may not be being carried through by projects. Among participants of Priority 2 projects under the Convergence Programme, 18% report that they had either been mostly or continuously out of work since full time education.

Table 2.2: Labour market characteristics of participants

per cent of respondents

	Con P2	Con P3	Comp P1	Comp P2	Total
Activity Immediately Prior to ESF					
Paid employment	11.1	82.3	7.0	86.3	51.9
Unemployed	63.0	6.1	66.7	5.5	30.6
Education & training	9.7	10.5	5.3	6.9	9.7
Inactive	15.8	1.0	21.1	1.0	7.4
Not known	0.5	0.2	0.0	0.3	0.3
Labour Market History					
Continuously in paid employment	24.4	46.1	8.8	50.0	37.0
Continuously in education or training	8.4	11.4	10.5	8.8	9.9
In paid work for most of this time	38.8	30.9	49.1	30.2	34.3
In education or training for most of this time	9.6	8.0	8.8	6.7	8.5
Mostly unemployed or out of work	13.6	2.6	19.3	3.4	7.5
Continuously out of work	4.2	0.4	1.8	0.4	2.0
Other	0.9	0.6	1.8	0.7	0.8
Total	100	100	100	100	100
Sample	3182	3502	57	766	7507

Thirty one per cent of respondents to the survey reported that they were unemployed immediately prior to commencing their ESF project, with a further 7% reporting that they were economically inactive (see Table 2.2). Table 2.3 presents information on the duration of non-employment and the reasons why respondents faced difficulties in finding work prior to their participation in an ESF project. In terms of the duration of worklessness, it can be seen that unemployed respondents have been out of paid employment for less time than those who are

economically inactive. Among the unemployed, 62% have been out of paid employment for less than 12 months. In contrast, 58% of the economically inactive report that they had been out of work for longer than 3 years. Once again, this finding suggests that ESF participants are relatively connected to the labour market.

The most important reasons cited by respondents for their difficulties in finding work were a perceived lack of appropriate jobs in the area where they lived (65%), their lack of relevant work experience (43%), their lack of qualifications (41%) and transport difficulties / barriers associated with accessing appropriate work (33%). Reasons provided by respondents who were economically inactive prior to their participation in an ESF project were more varied. Having caring responsibilities (39%), medical or health issues (39%), only wanting to work part time (29%) and a lack of affordable childcare (24%) were also of relative importance to respondents who were economically inactive prior to their participation in an ESF project. These differences reflect the relative gender make up of unemployed and economically inactive respondents, with the share of female respondents being higher among the economically inactive than among the unemployed.

Survey respondents were then asked what they perceived to be the main difficulty that they faced in finding work. The reason most frequently cited by survey respondents was ‘a lack of appropriate jobs where they lived, with approximately a third of respondents reporting this as the main reason for them being unable to find work. A lack of qualification or skills and a lack of relevant work experience were cited by 14% and 12% of respondents respectively. These reasons reflected those provided by respondents who were unemployed prior to their participation in ESF. However, among those who were economically inactive prior to ESF, the main difficulties they cite in finding work are considerably different and focus neither upon local economic conditions or issues related to their skills or work experience. One in four such respondents

report health problems as the main difficulty they faced in finding work, whilst one in five respondents reported caring responsibilities as the main issues that made it difficult for them to find work.

Table 2.3: Duration and reasons for non-employment prior to participation in an ESF project

per cent of non-employed respondents

	Unemployed		Inactive		Total	
Duration of non-employment						
Less than 12 months	61.5		21.0		55.0	
1 - 3 years	22.2		21.0		22.0	
3 - 10 years	13.7		51.8		19.8	
10+ years	2.6		6.2		3.1	
Reasons for non-employment:	All	Main	All	Main	All	Main
Lack of appropriate jobs where you live	69.5	37.0	40.2	10.3	64.8	32.7
A lack of qualifications or skills	43.3	14.7	30.6	7.8	41.3	13.6
Lack of relevant work experience	44.7	13.3	33.8	3.9	43.0	11.8
Medical/health issues	13.9	6.0	38.8	25.6	17.9	9.1
Transport difficulties and it being hard to get appropriate work	33.9	7.1	26.9	3.4	32.8	6.5
Having caring responsibilities	12.4	2.8	39.3	20.1	16.7	5.6
My age (too old/young)	22.8	5.6	16.2	3.7	21.7	5.3
Lack of affordable childcare	8.9	2.2	24.2	5.5	11.4	2.7
Only wanting to work part time	12.6	1.7	28.8	3.9	15.2	2.0
Having a criminal record	4.3	1.0	3.7	1.1	4.2	1.1
The recession/economic climate	1.7	1.1	0.2	0.0	1.5	1.0
Alcohol or drug dependency	2.2	0.8	3.2	1.6	2.4	0.9
Believing you would not be better off financially in work	9.1	0.7	17.6	1.6	10.5	0.8
Sample	1,192		350		1,542	

2.4 Comparisons of survey respondents with the wider population

Finally in this chapter, we compare the characteristics of respondents with the wider population. This allows us to consider how representative ESF participants are in the context of the wider population. Comparison data for Wales are provided by the UK Labour Force Survey (LFS). Data from the LFS are restricted to the population of working age who are also over the age of 18. Due to the relatively small sample size for Wales, it was necessary to merge data for

the LFS covering the period 2008 to 2010. For the purpose of these comparisons, we distinguish between the employed and the non-employed. In Table 2.4, it can be seen that both the employed and non-employed sample of ESF participants exhibit lower levels of educational attainment compared with the wider working aged population. Only 31% of the ESF sample report holding a qualification at a level equivalent to NQF Level 3 or above. This is compared with 46% among the wider population of working age. The ESF sample contains a smaller proportion of people suffering from a work limiting illness (10%) compared with the general working age population (18%). This is to be expected given the relatively young composition of the ESF sample where 34% of respondents are aged 24 or under (twice the proportion observed among the wider population of working age).

Table 2.4: Comparing the survey sample with the general population of working age

per cent of total

	2008-2010 LFS			2010 ESF Leavers Survey		
	Employed	Non Employed	All	Employed	Non Employed	All
Gender:						
Male	54.2	47.1	52.2	40.5	61.0	50.3
Female	45.8	52.9	47.8	59.5	39.0	49.7
Age:						
18 - 20 yrs	4.9	12.9	7.1	11.5	25.9	18.3
21 - 24 yrs	8.7	11.3	9.4	16.8	14.7	15.8
25 - 30 yrs	13.3	9.3	12.2	14.5	11.3	13.0
31 - 40 yrs	23.2	15.4	21.1	21.2	16.4	18.9
41 - 54 yrs	35.9	26.5	33.3	30.2	23.5	27.0
55+ yrs	14.0	24.7	16.9	5.8	8.3	7.0
Educational attainment:						
NQF level 3+	50.9	31.8	45.6	35.8	25.2	30.8
Work limiting illness	7.6	43.7	17.6	5.1	14.9	9.8
Ethnicity:						
White	97.4	95.8	96.9	97.2	98.1	97.6
Total	100	100	100	100	100	100

CHAPTER 3: Participating in an ESF project

Chapter Summary

- Approximately 60% of respondents were aware that ESF had helped to pay for their participation in an ESF project.
- The two main reasons given by respondents for participating in an ESF project were to develop a broader range of skills (20%) and to improve or widen their career options (21%).
- Rates of withdrawal from ESF projects are highest amongst those aged 15-18 at the time of the survey and among those with lower levels of educational attainment.
- Reasons for withdrawal from an ESF project are complex and can reflect positive events such as finding a job.

3.1 Introduction

This chapter considers where and when respondents undertook their ESF interventions. The discussion then considers the main reasons given by respondents for choosing to participate in an ESF project. The chapter culminates in a description of the incidence of early withdrawal from ESF projects and the factors that influence participants' decisions to withdraw early from their ESF project.

3.2 Embarking on an ESF project

Chapter 2 described how differences in the characteristics of survey respondents between those who participated in projects under the two different ESF Priorities reflected differences in the groups that were being targeted. The different nature of these interventions is also reflected in the nature of their delivery. As noted in Chapter 2, a majority of Priority 3 respondents under the Convergence Programme and Priority 2 respondents under the Competitiveness Programme were in employment prior to their participation. As such, a majority of respondents from these Priorities participated in projects at the workplace (see Table 3.1). Reflecting their increased work commitments, a higher proportion of Priority 3 respondents from the Convergence Programme (17%) and Priority 2

respondents from the Competitiveness Programme (14%) indicated that courses took place in the evenings or on weekends than respondents from other two Priorities.

Table 3.1: Characteristics of ESF Projects

per cent of respondents

	Con P2	Con P3	Comp P1	Comp P2	Total
Location of delivery:					
College	12.8	19.4	0.0	23.9	16.9
Community centre	20.7	6.5	19.3	1.7	12.1
Training centre	51.0	12.3	36.8	10.6	28.7
At home	0.4	2.0	0.0	3.1	1.4
Workplace	8.7	54.4	38.6	58.2	35.3
School	6.4	5.4	5.3	2.5	5.5
Duration:					
Less than 1 month	34.6	12.6	15.8	8.8	21.5
1 to 6 months	37.4	21.6	84.2	10.2	27.6
6 to 12 months	18.3	33.6	0.0	35.4	27.0
12 to 24 months	3.7	16.7	0.0	25.7	12.0
24+ months	1.0	8.9	0.0	12.3	5.8
Don't Know	5.1	6.7	0.0	7.7	6.1
Hours spent per week on the course or project:					
0-4 hours	23.5	37.8	14.0	38.3	31.6
5-9 hours	19.5	27.8	22.8	27.2	24.2
10-15 hours	7.2	9.9	7.0	12.1	9.0
16-24 hours	9.6	5.3	10.5	5.2	7.1
25 hours or more	35.9	13.7	43.9	12.9	23.3
Don’t know	4.5	5.5	1.8	4.3	4.9
Took course on evenings/weekends:	7.6	17.3	1.8	14.2	12.7
Took course during the working week:	93.8	89.9	98.3	94.4	92.1
Was aware that ESF helped pay:	57.2	61.5	63.2	59.7	59.5
Sample	3,182	3,502	57	766	7,507

Both the duration and intensity of ESF interventions differs considerably between respondents from the different Priorities. Among Priority 2 respondents from the Convergence Programme, 72% of interventions were reported to have lasted less than 6 months. Among Priority 3 respondents from the Convergence Programme, only 33% of respondents reported that their projects lasted less than

6 months. Similarly, only 19% of respondents from Priority 2 of the Competitiveness Programme reported that their intervention lasted for less than 6 months. Interventions aimed at those primarily in work are more likely to be associated with the attainment of a qualification (see Chapter 4) and therefore take place over a longer period of time. However, interventions primarily aimed at those out of work are associated with longer hours spent per week on the course of project. Approximately 36% of Priority 2 respondents from the Convergence Programme indicated that they spent 25 hours a week or more on their course or project. Finally, approximately 60% of respondents were aware that the project was funded by ESF, with levels of awareness being relatively uniform across different Priorities. These levels of awareness are comparable to those reported among respondents of the 2009 Survey.

Respondents to the survey were asked to provide reasons why they embarked on an ESF project (Table 3.2). Reflecting the relative labour market positions of respondents from the different Priorities, the three main reasons provided by Priority 2 respondents from the Convergence Programme for participation in an ESF project was to help them get a job (33%), to improve or widen their career options (19%) and to develop a broader range of skills (15%). The relative importance of these reasons is broadly comparable to responses provided by the much smaller sample of respondents from Priority 1 of the Competitiveness Programme. Given the employment position of Priority 3 respondents from the Convergence Programme and Priority 2 of the Competitiveness Programme, getting a job is of less relevance to these groups (6-7%). However, these respondents also emphasised the importance of improving their career options (22% and 25% respectively) and developing a broader range of skills (23% and 26% respectively).

Table 3.2: Reasons for undertaking an ESF project

per cent of respondents

	Con P2	Con P3	Comp P1	Comp P2	Total
All reasons:					
Develop a broader range of skills	89.4	92.5	82.5	94.6	91.3
Improve or widen career options	87.7	87.2	94.7	91.1	87.9
Develop more specialist skills	77.0	82.7	78.9	85.0	80.5
Learn something new for personal interest	76.8	75.5	82.5	72.3	75.8
Help get a job	84.4	47.1	78.9	44.8	62.9
Improve pay, promotion or other prospect	46.0	61.2	45.6	70.2	55.6
An adviser recommended it as it was relevant to my particular needs	53.1	53.8	38.6	60.4	54.1
Help progress to another education, training or learning course	49.9	49.9	45.6	48.2	49.7
Employer requested or required it	15.0	42.3	21.1	52.0	31.5
Main reason:					
Improve or widen career options	19.0	21.9	10.5	25.1	20.9
Develop a broader range of skills	15.0	23.1	19.3	25.6	19.9
Help get a job	32.8	7.3	33.3	6.4	18.3
Develop more specialist skills	6.9	11.8	10.5	11.9	9.7
Learn something new for personal interest	8.9	7.2	1.8	4.2	7.5
Employer requested or required it	2.8	9.4	1.8	10.4	6.6
Improve pay, promotion or other prospect	1.5	6.9	3.5	6.8	4.6
Help progress to another education, training or learning course	3.4	4.7	5.3	2.7	3.9
An adviser recommended it as it was relevant to my particular needs	3.4	2.5	5.3	3.1	3.0
Sample	3,182	3,502	57	766	7,507

Finally, in terms of their choice to undertake their ESF course, 14% of respondents reported that they had considered alternative options to their ESF project. However, among these respondents, 77% reported that they felt that the ESF intervention was most suited to their needs whilst 58% reported that the time or location of the course was more convenient than the other options that they had considered.

3.3 Withdrawing from an ESF project

Both the administrative records of ESF participants supplied by WEFO to the research team and the survey dataset provide information on early withdrawal

from ESF projects. Comparisons of completion status from these two sources suggested that there are some inconsistencies between the information held on respondents from administrative records and the information supplied by participants in response to the survey. Of the 6,695 respondents to the survey who reported that they had completed their ESF project, 475 (7%) are actually recorded in the administrative data as having withdrawn from their course early. Conversely, of the 812 respondents to the survey who said that they withdrew from the course early, 370 (46%) are recorded as having completed the course within the administrative data.

For the purpose of this analysis we define withdrawers from ESF projects as those people where administrative records indicate that an individual withdrew from an ESF project early. The estimated rate of withdrawal derived using this method is estimated to be 12%. Rates of withdrawal from ESF projects are presented in Table 3.3. For the purpose of this analysis, rates of withdrawal are presented separately for participants in interventions aimed at the out of work (Convergence P2 and Competitiveness P1) and interventions aimed at the in-work (Convergence P3 and Competitiveness P2). It can be seen that rates of withdrawal are higher among those in 'out of work' interventions (15%) compared with interventions aimed at those in work (10%). Across both types of interventions, withdrawal from ESF is most prevalent among the young (24% among those aged 16 to 18 years) and those with low levels of prior educational attainment (15% among those with no qualifications). Those with a work limiting illness are also more likely to withdraw from an ESF project, although this differential is only estimated to exist among participants in interventions aimed at the out of work.

Table 3.4 highlights the variety of complex reasons given by respondents for leaving an ESF project early. The most commonly cited reason among respondents who had participated in interventions aimed at those out of work was having left to start a new job (23%), highlighting that withdrawal from an ESF

project may reflect a successful outcome. Twelve per cent of withdrawers from projects aimed at those in employment also gave this as a reason for withdrawing from an ESF project. However, among such respondents, the most commonly cited reason for leaving early was family or personal circumstances (20%), closely followed by a lack of time (19%). This is likely to reflect relative difficulties of this group associated with participating in an ESF project whilst also being in paid employment. Family circumstances were also an important reason for withdrawal among those on interventions aimed at the out of work (22%) respondents.

Table 3.3: Personal characteristics and withdrawal from ESF projects

per cent of respondents

	Con P2/Comp P1	Con P3/Comp P2	Total
Gender:			
Male	13.7	11.4	12.6
Female	16.4	9.3	11.9
Age:			
16 - 18 yrs	20.7	31.8	23.7
19 - 21 yrs	15.3	11.4	12.7
22 - 24 yrs	18.6	9.9	12.1
16 - 24 yrs	*17.9*	*12.6*	*14.7*
25 - 30 yrs	16.0	8.3	11.2
31 - 40 yrs	14.4	8.7	11.2
41 - 54 yrs	13.6	9.5	11.3
55+ yrs	10.2	8.6	9.6
Educational attainment prior to ESF:			
None	17.9	9.3	14.6
NQF Level 1 or less	16.8	13.1	14.8
NQF Level 2	14.8	11.4	12.7
NQF Level 3	15.4	8.7	11.0
NQF Level 4 or above	10.6	8.1	8.9
Unspecified Level	13.1	10.4	11.7
Work limiting illness:			
Yes	21.1	10.2	18.2
No	13.5	10.2	11.5
All withdrawals	14.9	10.2	12.2
Sample	3,239	4,268	7,507

Table 3.4: Reasons for not completing an ESF project

per cent of withdrawers

	Con P2/Comp P1	Con P3/Comp P2	Total
Family/personal circumstances	22.0	20.1	21.0
Left to start a new job	23.4	12.1	17.6
Course did not meet expectations	13.3	14.3	13.8
Lack of time/too busy	4.1	18.8	11.5
Childcare difficulties	15.1	6.7	10.9
Started another course	0.9	10.7	5.9
Problems accessing course	6.4	3.1	4.8
Lack of support/help	5.0	4.0	4.5
Course too advanced/hard	2.8	4.5	3.6
Course too easy	3.7	2.2	2.9
Lost interest/got bored	1.8	4.0	2.9
Course cancelled/closed down	2.8	2.2	2.5
Dismissed/dropped from course	2.3	2.2	2.3
Did not like it	2.8	1.3	2.0
Dismissed/made redundant/left job	0.0	2.2	1.1
Sample	218	224	442

Among all participants, a lack of time was also cited as a relatively important reason for withdrawal (12%). Further analysis by gender also points to the relative importance of time constraints for withdrawal from ESF projects among women (11% compared with 5% among males). Related to this, women were also much more likely to report family or personal circumstances as a reason to withdraw from an ESF project (23% compared with 12% among males), highlighting difficulties associated with balancing participation in an ESF project with family life.

CHAPTER 4: ESF and the Accumulation of Skills

Chapter Summary

- The most commonly cited skills acquired by respondents during their ESF project were communication skills (77%), team working skills (76%), organizational skills (75%) and problem solving skills (72%).

- Approximately 80% of respondents report that they gained some form of qualification through ESF.

- Twelve percent of respondents undertake ESF projects that result in a qualification at the same level to that which they held prior to the intervention, whilst a further 12% of respondents undertook a qualification that was at a lower level. Eighteen per cent of respondents undertake an ESF project that results in a higher level qualification.

- By the time of the survey, the proportion of respondents with no qualifications declines from 10% to 5% as a result of qualifications achieved during and since ESF

4.1 Introduction

This short chapter presents information on the contribution of ESF to the development of skills of ESF participants. The analysis firstly considers the type of skills that respondents report have acquired as a result of their ESF project. The analysis then goes on to consider the contribution of ESF and of further study and training among survey respondents following the completion of their ESF intervention upon levels of educational attainment.

4.2 Skills Acquired from ESF

Table 4.1 considers the nature of skills acquired by respondents during the course of their ESF project. The most commonly cited skills were key skills including communication skills (77% of respondents), team working skills (76%), organizational skills (75%) and problem solving skills (72%). In terms of differences between different Priorities, respondents from projects within

Priorities that were primarily aimed at achieving progression in employment are more likely to report that they had accumulated job specific skills (76% Convergence Priority 3; 80% Competitiveness Priority 2) compared with respondents who participated in projects within Priorities aimed at achieving increased levels of participation in employment. Participants from these projects are more likely to report improvements in job search skills (54% among Convergence Priority 2 respondents; 70% among Competitiveness Priority 1 respondents) and CV writing or interview skills (50% among Convergence Priority 2 respondents; 65% among Competitiveness Priority1 respondents). More than half of participants reported that they had improved literacy and numeracy skills as a result of the intervention.

Table 4.1: Skills Acquired from an ESF project

per cent of respondents

	Con P2	Con P3	Comp P1	Comp P2	Total
Communication skills	73.0	79.8	71.9	81.4	77.0
Team working skills	72.1	77.5	83.6	81.6	75.7
Organizational skills	68.6	79.2	64.9	81.3	74.8
Problem solving skills	65.4	75.2	66.7	79.9	71.5
Job-specific skills related to a specific occupation	63.0	76.0	69.6	79.4	70.8
Literacy skills	53.9	58.0	40.4	63.1	56.7
Numeracy skills	51.0	56.7	42.1	65.2	55.0
IT skills	53.9	52.1	40.4	52.1	52.8
Job search skills	53.8	43.7	70.2	46.7	48.5
Leadership or management skills	35.5	53.9	57.9	57.6	46.5
CV writing or interview skills	50.0	41.7	64.9	42.9	45.5
English language skills	33.5	35.4	31.6	35.7	34.6
Sample	3,182	3,502	57	766	7,507

4.3 Educational Attainment and ESF

Table 4.2 considers how the educational attainment of survey respondent develops both as a result of ESF and as a result of further education and training that is undertaken subsequent to their participation on an ESF project. The survey firstly asks respondents about their level of educational attainment prior to their participation in ESF. These figures are those previously reported in Table 2.1, but we repeat them here for ease of exposition. Approximately 10% of respondents did not possess any qualifications prior to their participation in an ESF project, with this figure higher in those Priorities where the ESF interventions primarily focus on improving participation in the labour market and employment.

The next panel in Table 4.2 provides information on the qualifications arising directly from participation in ESF. Overall it can be seen that 21% respondents did not achieve a qualification as a result of their ESF project. This figure is higher among Priority 2 respondents from the Convergence Programme where 27% of respondents do not achieve a qualification through their ESF project. This figure is 35% among Priority 1 respondents from the Competitiveness Programme, although it must be noted that this group is represented by a relatively small sample. The lower levels of qualifications achieved among these respondents reflects the relative objectives of projects within these Priorities, with a greater emphasis on key skills and interventions that provide practical support to finding employment as opposed to formal qualifications. The third panel summarises the qualifications achieved by respondents subsequent to their participation in ESF. Only 19% of respondents acquired further qualifications following ESF and so a majority of respondents are classified as having acquired no further qualifications. Nonetheless, it remains the case that a minority of respondents undertake further qualifications that contribute to the stock of skills acquired by that individual.

Table 4.2: Qualification Levels and ESF

per cent of respondents

	Con P2	Con P3	Comp P1	Comp P2	Total
Qualifications held before course					
None	14.6	7.3	15.8	4.8	10.2
NQF Level 1 or less	18.6	14.1	19.3	20.4	16.7
NQF Level 2	19.7	20.9	14.0	27.3	21.0
NQF Level 3	12.4	18.9	12.3	17.1	15.9
NQF Level 4 or above	9.9	19.7	24.6	9.5	14.6
Unspecified, other	24.7	19.1	14.0	20.9	21.7
Qualifications gained on course					
None	26.7	17.8	35.1	11.2	21.0
NQF Level 1 or less	14.8	4.5	7.0	2.6	8.7
NQF Level 2	16.4	34.1	8.8	41.4	27.1
NQF Level 3	3.6	20.3	1.8	30.6	14.1
NQF Level 4 or above	0.7	6.0	0.0	1.4	3.2
Unspecified, other	37.9	17.4	47.4	12.8	25.8
Qualifications gained subsequent to course					
None	79.7	81.2	82.5	84.9	81.0
NQF Level 1 or less	3.6	1.0	1.8	0.4	2.1
NQF Level 2	4.6	2.9	0.0	2.6	3.6
NQF Level 3	2.0	3.7	3.5	3.7	3.0
NQF Level 4 or above	0.6	3.5	0.0	1.2	2.0
Unspecified, other	9.5	7.7	12.3	7.3	8.5
Qualifications held at time of survey					
None	9.6	2.1	12.3	1.3	5.3
NQF Level 1 or less	15.3	4.5	15.8	6.1	9.3
NQF Level 2	25.1	23.0	19.3	27.6	24.3
NQF Level 3	14.8	26.8	14.0	32.8	22.2
NQF Level 4 or above	10.5	24.5	24.6	11.4	17.3
Unspecified, other	24.7	19.1	14.0	20.9	21.7
Total	100	100	100	100	100
Sample	3,182	3,502	57	766	7,507

Based upon information supplied by the respondents with respect to their pre-ESF qualification and qualifications achieved subsequently, it is possible to

derive the educational attainment of a respondent at the time of the survey. Due to the complexities associated with collecting information on qualifications held, particularly among respondents who may have completed full time education several decades earlier, it is not possible to allocate the educational attainment of all respondents prior to their participation in ESF to an NQF category. As such, 22% of respondents are recorded as having a qualification at a level that is classified as 'other or unspecified'. When such an individual has undertaken further qualifications, it is not possible to determine whether these qualifications are at a higher or lower level than the qualifications previously held by that individual. For the purpose of our analysis, in such cases it is assumed that the highest level of educational attainment of that person remains unknown. Furthermore, in collecting information regarding qualifications achieved through ESF or subsequent courses, once again respondents may not provide sufficient detail for a qualification to be allocated to an NQF level. In such cases, the highest level of educational attainment is recorded as the highest 'known' qualification recorded for that individual. This level could relate to qualifications held either before ESF, as a result of ESF or from training undertaken since ESF.

The benefit of taking such an approach is that the contribution of ESF (and subsequent courses) in contributing to the educational attainment of participants can be readily observed by comparing pre-ESF educational attainment (top panel of Table 4.2) with qualifications held at the time of the survey (bottom panel of Table 4.2). It can be seen that the proportion of respondents within no qualifications declines from 10% to 5% over this period. Likewise, the proportion of respondents who hold a qualification at NQF Level 3 or above increases from 31% prior to ESF to 39% at the time of the survey. These increases in educational attainment are particularly apparent within those Priorities characterised by interventions aimed at supporting those in employment. Among respondents from Priority 3 of the Convergence Programme, the proportion who hold a qualification at NQF Level 3 or above increases from 39% to 50% whilst

for respondents from Priority 2 of the Competitiveness Programme, this proportion increases from 27% to 44%.

Further information regarding qualification transitions are shown in Table 4.3. In this table we specifically consider the contribution of ESF projects to improving levels of educational attainment. It can be seen that 21% of respondents indicated that their ESF project did not result in a qualification. Twelve per cent of respondents undertake ESF projects that result in a qualification at the same level to that which they held prior to the intervention, whilst a further 12% of respondents undertook a qualification that was at a lower level (as classified by the National Qualification Framework) than that which they held prior to their participation in an ESF project. Eighteen per cent of respondents participate in an ESF project that results in a higher level qualification. Finally, qualification transitions could not be determined for 36% of respondents. This will be due to either their pre-ESF qualification levels or the qualifications they attained through ESF not being able to be allocated to an NQF level. It should be recognised that the objectives and skills provided by these courses will have a different emphasis than prior qualifications often achieved during their full time education. The attainment of lower level qualifications than those previously held may still represent a broadening of a respondent's skills base and should not necessarily be regarded as inappropriate to the needs of participants.

Table 4.3: Qualification Transitions and ESF

per cent of respondents

	Con P2	Con P3	Comp P1	Comp P2	Total
Qualification transition from ESF:					
Lower qualifications than before ESF	9.4	14.3	5.3	16.1	12.3
No qualifications from ESF	26.7	17.8	35.1	11.2	21.0
Same qualifications as before ESF	8.5	14.3	5.3	16.6	12.0
Higher qualifications than before ESF	10.0	24.1	5.3	27.8	18.4
Transition not determined	45.4	29.6	49.1	28.3	36.3
Total	100	100	100	100	100

Sample	3,182	3,502	57	766	7,507

CHAPTER 5: Career patterns of project participants

Chapter Summary

- A majority of transitions out of unemployment and inactivity among Priority 2 respondents from the Convergence Programme occur either during or immediately following their participation in an ESF project.

- During the 12 months following the completion of their ESF projects, those who were unemployed prior to ESF continue to experience transitions towards employment. However, those who were previously inactive tend to exhibit only relatively small increases in their rate of participation in employment. The increased participation in employment observed among this group appears to occur either during or immediately following participation in ESF.

- Men and those over the age of 25 exhibit the largest continuing transitions away from unemployment during the 12 months following ESF. Rates of transition into employment are lowest among ESF participants who achieved a qualification from ESF that was at a level lower than that which was previously held.

5.1 Introduction

This chapter examines the chronological experiences of survey respondents following the completion of their intervention. A section of the survey provides an historical account of the main activities that the respondent had been engaged in following the completion of their ESF intervention during 2010. The fieldwork for the survey was largely undertaken during July 2011. As respondents to the survey completed their ESF interventions throughout 2010, the length of time covered by these career histories varied. However, approximately 70% of respondents to the survey completed their ESF projects between January and July 2010. Given that the fieldwork for the survey was undertaken in July 2011, this group of respondents were therefore all able to provide an account of their labour market experiences that covered a period of at least 12 months following the completion of their interventions. Although some respondents were able to provide an account of their circumstances with respect to their activity in the labour market over a period of 19 months if they had completed that intervention

in January 2010, we limit the analysis to a follow-up period of twelve months to ensure consistency of the sample.

5.2 Employment and non-employment following ESF projects

There is considerable continuity in the post intervention career profiles of respondents participating in projects that are aimed primarily at those in employment. By definition, respondents in projects under Priority 3 of the Convergence Programme and Priority 2 of the Competitiveness Programme exhibit high rates of employment both before and after the intervention, with only a negligible reduction in the proportion of unemployed or inactive respondents during the 12 month period following an ESF project (analysis not shown). This continuity reflects the targeting of these interventions among the employed population and that the objectives of these interventions are about progression in employment. Whilst these interventions may indirectly affect labour market status insofar as they improve the chances of participants remaining in employment, the effects of these interventions on labour market status are expected to be much smaller than those observed among participants in projects aimed at improving participation in the labour market and employment. The remainder of this chapter therefore focuses on the career profiles of respondents from projects under Priority 2 of the Convergence Programme and Priority 1 of the Competitiveness Programme. However, given the relative sample sizes achieved from these two Priorities, the analysis can be assumed to largely represent the outcomes of participants from projects under Priority 2 of the Convergence Programme

Figure 5.1 considers the situation of those respondents who were unemployed immediately prior to their participation. Sixty seven per cent of participants who were unemployed prior to their intervention were neither in employment, education or training upon the completion of their intervention (i.e. at zero months following ESF). The proportion that remains unemployed or inactive falls to 48% by the end of the 12 month follow-up period. This decline in the proportion of

unemployed or inactive respondents of almost 20 percentage points is largely accounted by an 18 percentage point increase in the proportion of respondents in employment (from 30% to 48%).

Figure 5.2 considers the situation of respondents who were economically inactive prior to their participation in an ESF project. Rates of employment are much lower among this group compared with those observed among those who were unemployed prior to their project. Upon completion of their interventions, 9% have gained employment and a further 5% have moved in to education and training immediately following their ESF project. By the end of the follow-up period, 13% of respondents who were economically inactive prior to their participation in an ESF project are in employment and 7% are in education or training.

Figure 5.1: Career profiles of previously unemployed respondents (Con P2/Comp P1)

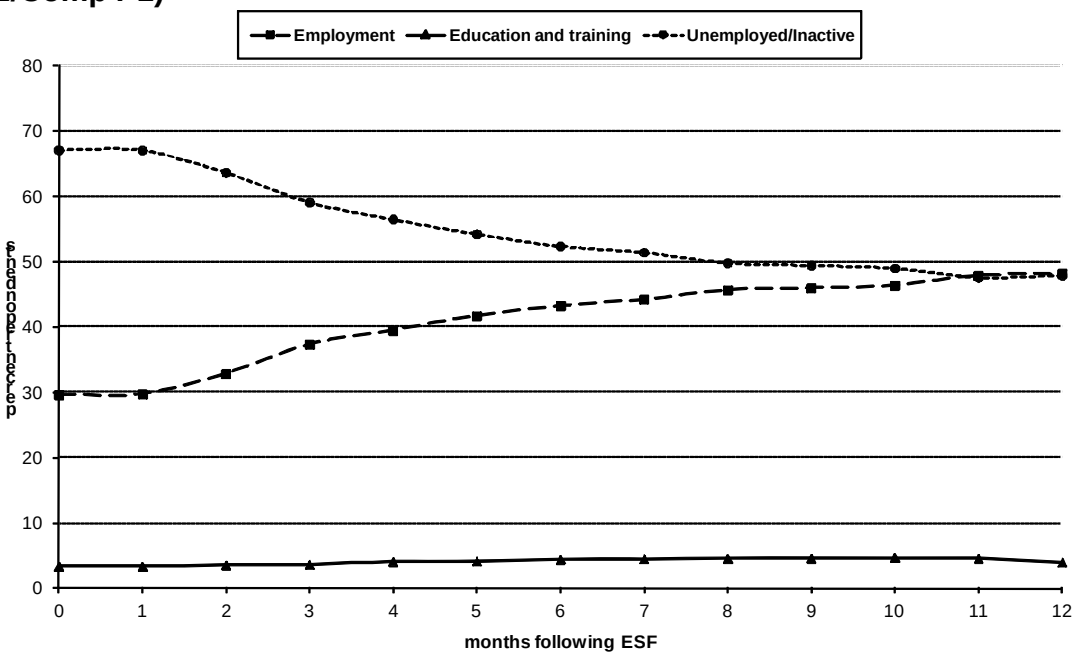
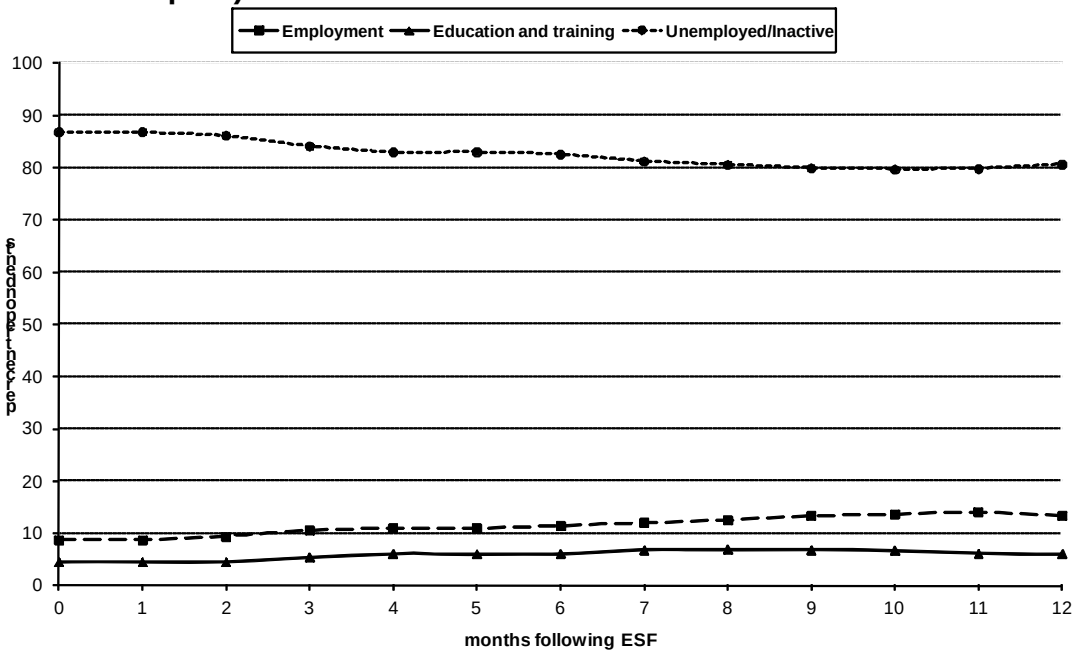


Figure 5.2: Career profiles of previously inactive Priority 2 respondents (Con P2/Comp P1)



Given the labour market outcomes observed immediately following the completion of an ESF project, the career profiles suggest that a majority of transitions among these respondents either occur during the period when they are participating in an ESF project or immediately following the completion of their ESF project. In the case of the unemployed, approximately two-thirds of the transitions into employment occur either during or immediately following the ESF project. Most transitions that occur following ESF are also shown to occur during the first 6 months, after which the rate of increase in the proportion of participants in employment slows down. In the case of those respondents who were economically inactive prior to ESF, 70% of the increase in participation in employment occurs immediately following the ESF project.

Figure 5.3 distinguishes between those who were unemployed and economically inactive before their participation in an ESF project and by gender. For each of these groups, the proportion of respondents who remain out of work

(unemployed or inactive) is shown. It can be seen that among those who were economically inactive before their participation in an ESF project, the proportion who remain out of work following the completion of their ESF project is 85% for males and 87% for females. Both groups exhibit a similar decline in 'worklessness' during the 12 month follow-up period, although the slightly higher levels of 'worklessness' among women persists. Among those who were previously unemployed, both men and women exhibit similar levels of worklessness immediately following their ESF intervention at approximately 67%. However, beyond this point it can be seen that the proportion of males who remain out of work following the completion of their ESF project declines more rapidly than that which is observed among females. By the end of the 12 month follow-up period, 45% of previously unemployed male respondents remain out of work compared with 54% of previously unemployed female respondents.

Figure 5.4 provides comparisons by age group of the career profiles of those who were either unemployed or inactive prior to their participation in an ESF project. Due to the relatively small number of young respondents who were economically inactive prior to their participation in an ESF project, no distinction is made between those who were either unemployed or economically inactive. It can be seen that participation in employment immediately following the completion of their ESF project is approximately 30% among both age groups. The employment pathways of those under the age of 25 and those aged 25 or over follow similar patterns during the first 3 months following participation in ESF, with participation in employment increasing to approximately 36-37% among both groups. However, beyond this point the increase in participation in employment among those under the age of 25 slows down. By the end of the follow-up period, participation in employment among this group only increases by a further 4 percentage points to 41%. This is in contrast to those aged 25 or over who exhibit a continuing increase in their participation in employment, resulting in this group exhibiting an employment rate of 51% by the end of the follow-up period.

Figure 5.3: Career profiles of previously non-employed respondents: by gender

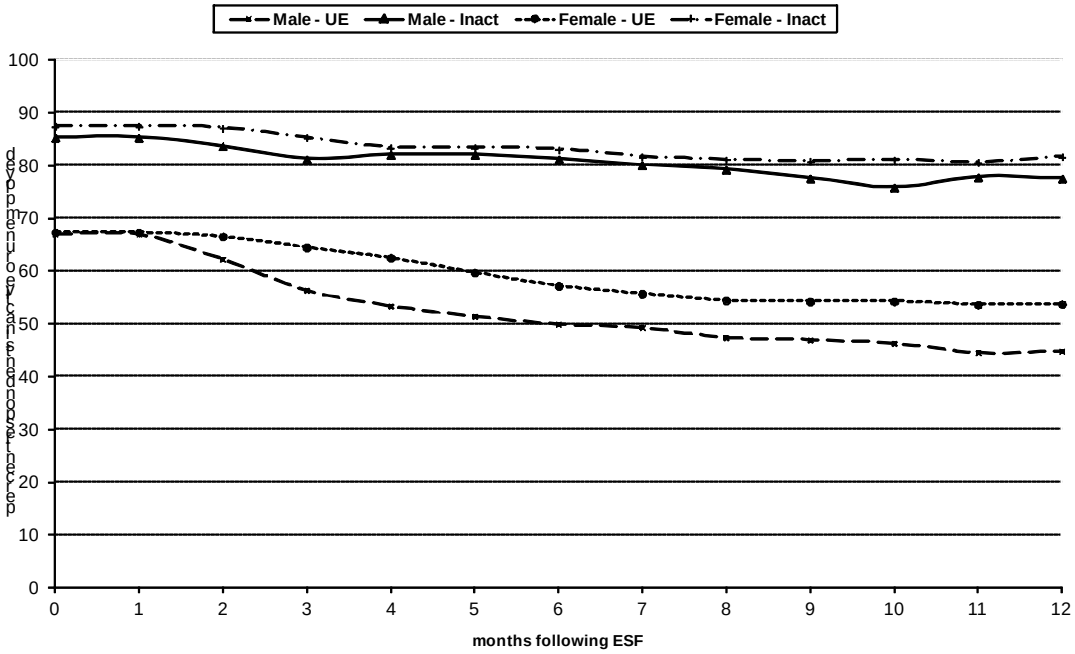
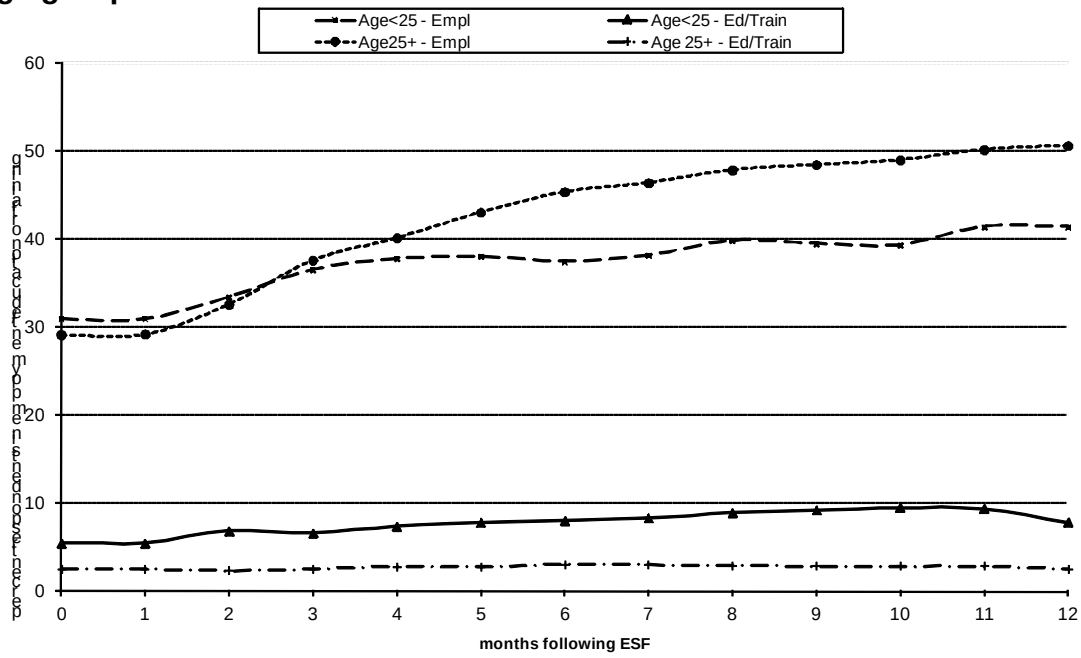


Figure 5.4: Career profiles of previously non-employed respondents: by age group



CHAPTER 6: The current employment of project participants

Chapter Summary

- Among respondents from Priorities aimed at improving participation in the labour market, 47% were in paid employment at the time of the survey: an increase in their rate of employment of 37 percentage points compared with that observed before their participation in an ESF project. Of this increase in employment, over 85% can be accounted for by people moving out of unemployment and in to paid work.
- Approximately 45% of respondents from Priorities aimed at improving participation in the labour market do not experience a change in their activity status. One in four are unemployed both prior to their participation and at the time of the survey.
- Among those previously out of work, the likelihood of being in employment at the time of the survey is positively related to both a) levels of educational attainment prior to ESF and b) achieving a higher level of qualification from ESF compared to that previously held.
- Almost half of employed respondents report that they are very satisfied with their jobs. Approximately 9% report positive changes in their jobs that were directly because of the intervention.
- The average gross weekly earnings among all employed respondents is estimated to be £249 per week among those respondents from Priorities aimed at improving participation in the labour market. This increases to £306 among those who participated in Priorities aimed at progression in employment.

6.1 Introduction

The previous chapter provided a broad overview of the labour market status of ESF participants over a period of 12 months following the completion of their ESF project. This chapter provides a more detailed insight in to the labour market characteristics of respondents measured at the time of the survey. The chapter firstly compares the labour market situation of participants at the time of the survey with that held immediately before they participated in a project. We then consider the current economic activity of respondents. For those who are in employment, we go on to describe the nature of the employment these

respondents hold. We then consider the perceptions of respondents regarding their levels of job satisfaction and examine whether respondents attribute any improvements in the nature of their jobs directly to ESF. Finally, the chapter provides information on the current earnings of ESF participants.

6.2 Current economic activity of ESF participants

The main activity of respondents at the time of the survey is outlined in Table 6.1. Rates of employment are significantly higher among respondents who had participated in projects under Priority 3 of the Convergence Programme (90%) and Priority 2 of the Competitiveness Programme (91%), reflecting the higher levels of employment among this group prior to commencing an ESF intervention and the workplace based nature of these projects (see Chapter 3).

Table 6.1: Current main economic activity

per cent of total

	Con P2	Con P3	Comp P1	Comp P2	Total
Paid employment	46.9	90.2	31.6	90.6	71.4
Education & training	5.8	3.3	12.3	1.7	4.3
Unemployed	29.5	4.8	36.8	5.0	15.5
Inactive	17.0	1.6	19.3	2.6	8.4
Missing	0.8	0.1	0.0	0.1	0.4
Total	100	100	100	100	100
Sample	3,182	3,502	57	766	7,507

Table 6.2 considers labour market transitions among survey respondents, contrasting their main labour market activity immediately before embarking on an ESF project with their situation recorded at the time of the survey. Due to the circumstances surrounding participation in projects under Priority 3 of the Convergence Programme and Priority 2 of the Competitiveness Programme and the considerable continuity in the labour market positions of these respondents (see Chapter 5), these transitions are considered only for those respondents who participated in projects under Priority 2 of the Convergence Programme and Priority 1 of the Competitiveness Programme. There is a degree of continuity in the labour market positions of respondents who participated in these projects

(Table 6.2). Prior to their participation in an ESF project, 11% of these respondents were in employment. By the time of the survey, 47% of this group of respondents were in employment. This increase in employment of 36 percentage points is largely accounted for by a movement out of unemployment into paid work, with 32% of respondents making this transition. Nonetheless, it remains the case that over a third of respondents were either unemployed or economically inactive both prior to their ESF intervention and at the time of the survey. Transitions experienced among those who were previously economically inactive are demonstrated to be relatively small by comparison. Of respondents who were unemployed or economically inactive on joining an ESF project, 43% were in paid employment at the time of the survey

Table 6.2: Current activity compared with main activity prior to ESF intervention: (Con P2/Comp P1 Respondents)

per cent of respondents

Main activity before attending course	Current main activity				
	Paid employment	Education and training	Unemployed	Economically inactive	Total
Paid employment	8.6	0.2	1.7	0.6	11.1
Education and training	4.0	2.0	2.7	0.7	9.5
Unemployed	31.8	2.7	23.8	5.2	63.5
Economically inactive	2.6	1.0	1.7	10.6	15.9
Total	47.0	6.0	29.9	17.1	100% (n=3,200)

Note: For ease of exposition, respondents who replied don't know have been removed from this transition matrix

6.3 Characteristics of current employment

Table 6.3 presents information on the nature of employment held by respondents at the time of the survey. As described above, a number of respondents who participated in projects within Priorities that aim to improve participation in the labour market moved into employment following their participation in ESF. In terms of occupation, it can be seen that approximately 20% of respondents employed at the time of their interviews are employed within Personal Service Occupations. The next most cited occupational area by respondents is employment within Skilled Trades, which accounts for a further 16% of those in

employment. In terms of differences between Priorities, it can be seen that respondents who participated in projects under Priority 2 of the Convergence Programme were more likely to be employed within low skilled occupations towards the base of the occupational distribution. Relatively high proportions of this group are employed as operatives (e.g. factory workers) or are engaged in low skilled elementary occupations (e.g. cleaning, labouring, packing etc).

Table 6.3: Nature of current employment

per cent of employed respondents

	Con P2	Con P3	Comp P2	Total
Occupation:				
Managers & senior officials	4.8	10.2	8.7	8.5
Professional	3.7	3.8	1.4	3.4
Associate prof & tech	6.6	11.3	6.5	9.4
Admin and secretarial	9.2	10.8	9.4	10.2
Skilled trades	15.5	14.6	20.3	15.6
Personal service	13.3	21.8	23.9	19.7
Sales and customer service	9.6	5.6	6.6	6.8
Process, plant and machine	14.3	3.5	3.2	6.5
Elementary	19.7	7.3	8.9	11.0
Missing	3.3	11.2	11.1	9.0
Contractual Status:				
Permanent	73.1	89.3	93.8	85.5
Hours worked per week:				
Less than 16 hours	17.9	5.6	5.7	9.1
16-29 hours	15.6	11.8	10.3	12.7
30+ hours	65.9	82.4	84.1	78.0
Don't know	0.5	0.1	0.0	0.2
Refused	0.1	0.1	0.0	0.1
Total	100	100	100	100
Sample	1491	3159	694	5362

In terms of their contractual status, respondents who participated under Priority 2 of the Convergence Programme are more likely to be employed in non-permanent positions, such as temporary employment, casual positions or fixed term contracts. In terms of the length of the working week, it can be seen that these respondents are more likely to work shorter hours, where 34% of such respondents are employed in positions where they work less than 29 hours per

week. This is compared with just 16-17% of those employed respondents who participated in projects funded by the other Priorities. These findings point to the relative prevalence of employment within low level 'entry' positions among those who participated in projects aimed at supporting those previously out of work, often characterised by relative low skilled, part time employment.

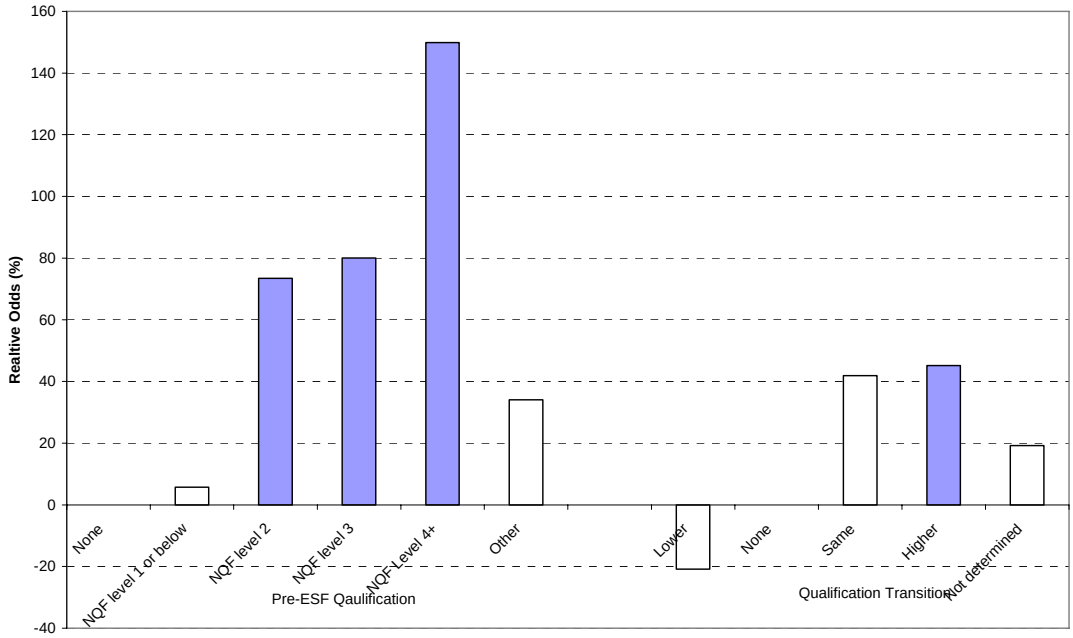
6.4 Who Gains Employment Following ESF?

To gain a better understanding of the effect of ESF interventions in assisting respondents to gain employment, we undertook more detailed analysis to consider which characteristics were associated with a respondent reporting that they were employed at the time of the survey. The analysis is restricted to those respondents who a) were unemployed or economically inactive prior to their participation in ESF and b) participated in projects under Priority 2 of the Convergence Programme or Priority 1 of the Competitiveness Programme. Multivariate methods were used to simultaneously identify the separate and additional effect of a variety of personal and intervention related characteristics upon the likelihood that an individual will be in employment at the time of the survey. Our particular interest is to consider, after controlling for other characteristics, how transitions in educational attainment that occur as a result of ESF interventions (such as those described in Chapter 4) affect the likelihood of a respondent being in employment at the time of the survey. The results for selected characteristics are shown in Figure 6.1. The factors are shown in sets of categories, with one category excluded in each set as the reference category against which the relative odds can be evaluated (e.g. men relative to women). Where bars lie above the horizontal axis, the category has a higher probability of being in employment than the reference category. Coloured bars indicate relationships that are estimated to be statistically significant effects.

The results of the analysis reveal that the likelihood of being employed following the completion of an ESF project is higher among those with higher levels of pre-entry qualifications. Those who had qualifications at NQF level 4 or above prior

to participation in ESF are estimated to be 150% more likely (or 2.5 times as likely) to be in employment at the time of the survey than those with no qualifications. However, the analysis also reveals that the nature of the transitions in educational attainment that arise out of participation in an ESF project also have a separate and additional impact. Those who undertook qualifications at ether the same level or at a higher level than that which they previously held exhibited a 40-45% increase in the likelihood of being in employment at the time of the survey compared with those who did not achieve a qualification. Attaining a lower level qualification is not estimated to be associated with an increased chance of gaining employment after controlling for the other characteristics of respondents participating in these projects.

Figure 6.1: Qualifications and the probability of being in employment



6.5 Satisfaction with current employment

This section examines the perceptions of respondents regarding the quality of the jobs they held at the time of the survey (i.e. post ESF intervention). In terms of overall levels of job satisfaction, 46% of respondents to the survey report that,

overall, they are 'very satisfied' with their current jobs. A further 44% indicate that they were 'satisfied' with their current job, suggesting that a very large majority of respondents were satisfied with the jobs currently held. The survey also asked respondents to consider how satisfied they were with their jobs across a number of dimensions. These dimensions are listed in Table 6.4. It can be seen that levels of job satisfaction are lower when respondents are asked to consider satisfaction with their jobs in relation to job security (29% report that they are 'very satisfied') and the number of hours that they worked (29% report that they are 'very satisfied'). Levels of satisfaction are lowest when respondents are asked to rate their satisfaction with their overall levels of pay, where 16% report that they are 'very satisfied'. As was the case with the overall measure of job satisfaction, a majority of respondents report that they are 'very satisfied' or 'satisfied' with their jobs when judged against a number of different criteria.

Table 6.4: Dimensions of job satisfaction

	per cent of respondents
% of employed respondents who report that they are very satisfied……	
…with the actual work itself	42.7
…with their overall pay	15.9
…with their supervisor or manager	47.3
…with their job security	28.5
…with the opportunity to use your own initiative	44.5
…with the number of hours they work	28.8
…that their work takes place in a safe and healthy environment	50.1
Overall very satisfied with your present job	45.8

6.6 Improvements in job characteristics

Respondents to the survey who were in employment both prior to participation in an ESF project and at the time of the survey were asked to consider whether changes had occurred in the nature of their employment and whether they felt that any of these changes happened because of their ESF participation. These questions were asked of both those who, at the time of the survey, were in a different job compared with the one they held prior to the ESF intervention and also to those who were in the same job. Given the emphasis upon the career

progression of those in work and the relatively small number of respondents from Priority 2 projects under the Convergence Programme who were employed prior to ESF, analysis of responses to these questions are presented for Priority 3 respondents from the Convergence Programme and for Priority 2 respondents from the Competitiveness programme only . Responses to these questions are summarised in Table 6.5.

Among those respondents employed in the same jobs that they held prior to ESF, the most commonly reported improvements in job conditions related to having had more training opportunities (68%), getting more job satisfaction (63%) and improvements in future pay and promotion prospects (52%). In contrast, only 21% of respondents reported that they had had a promotion. Among those who were in a different job to that which they held prior to participating in an ESF project, such respondents are more likely to report a variety of improvements in their jobs. Respondents were also asked whether they felt that these changes happened because of their participation in the intervention. Approximately 9% reported that these changes (whether they be in the same job or in a new job) were directly because of the intervention.

Table 6.5: ESF and improvements in current job

per cent employed respondents

	In the same job	In a new job
More opportunities for training	68.2	76.0
More job satisfaction	62.3	81.7
Improved pay and promotion prospects	52.1	73.2
Better job security	44.7	73.2
Pay rate, salary or income increased	40.9	62.4
Promotion/new job is at a higher level	20.9	60.8
Improvements directly related to ESF	8.8	10.0
Sample	2715	601

6.7 The earnings of ESF participants

An important measure of job quality is the earnings of respondents. Table 6.6 presents data on the gross weekly earnings of respondents. It can be seen that levels of gross weekly earnings are higher generally among those who have participated in projects under Priority 3 of the Convergence Programme and Priority 2 of the Competitiveness Programme (£306 compared with £249). This would be expected given the different characteristics of the jobs held by these two groups described earlier in this chapter. The variations in earnings of ESF participants across the different personal and job related characteristics presented in Table 6.6 are typical of the differentials that exist within the wider labour market. It can be seen that gross weekly earnings are lower among women than among men. This will reflect a variety of issues that are well known to contribute to the lower earnings of women, including occupational segregation, part time employment and family formation. Earnings increase with educational and occupational attainment. Finally, those working shorter hours are shown to earn less than those employed in full time positions, reflecting both the reduced number of hours worked and the lower pay per hour received by part time workers.

Multivariate analysis was undertaken to allow us to simultaneously control for differences in earnings that are attributable to a variety of personal and job related characteristics, such as age, gender and levels of entry qualifications etc. Detailed results are presented in Annex 2. Analysis revealed a strong and statistically significant relationship between educational attainment and earnings. Among those who were previously in work, the attainment of additional qualifications directly contributed to the earnings of respondents. Those who attained a qualification from ESF at the same level as that previously held experienced an increase in their earnings of 6% relative to those who did not gain a qualification through ESF. Those who gained a qualification at a higher level experienced an increase in their earnings of 9%.

Table 6.6: Gross weekly earnings

employed respondents

	Con P2/Comp P1	Con P3/Comp P2
	(£/week)	*(£/week)*
Gender:		
Male	289	344
Female	179	277
Age:		
16 -18 yrs	155	202
19 - 21 yrs	188	266
22 - 24 yrs	264	289
16 - 24 yrs	*191*	*270*
25 - 30 yrs	252	319
31 - 40 yrs	274	326
41 - 54 yrs	285	328
55+ yrs	264	313
Ethnicity:		
White	249	306
Non-white	276	302
Prior educational attainment		
None	215	240
NQF Level 1 or less	219	271
NQF Level 2	226	265
NQF Level 3	257	305
NQF Level 4 or above	329	368
Work limiting illness:		
Yes	224	297
No	251	306
Current occupation:		
Managers & senior officials	358	398
Professional	340	416
Associate professional	293	380
Admin and secretarial	218	296
Skilled trades	312	313
Personal service	200	233
Sales and customer service	152	234
Process, plant and machine	312	352
Elementary	204	242
Hours worked per week		
Less than 16 hrs	100	120
16-29 hrs	166	187
30+ hrs	310	334

Total	249	306
Sample	1,188	3,013

CHAPTER 7 The benefits of participation in an ESF project

Chapter Summary

- Approximately 90% of respondents report that they feel more confident in their own abilities and 85% report that they feel better about themselves generally.
- Twenty two per cent of respondents who were in a different job at the time of the survey compared with that which they held prior to participation in ESF report that their course was vital to them in terms of getting their current jobs. Respondents who possessed no qualifications prior to their participation in ESF are among those most likely to report this.
- Among those from Priorities aimed at improving participation in employment and who were not in employment at the time of the survey, approximately one in five report that they feel they have more chance of finding employment in the future as a result of participating in ESF. Younger respondents and those with lower levels of educational attainment appear more likely to report this.
- Respondents who achieve additional qualifications through ESF are more likely to report that the intervention resulted in a positive impact. This finding is observed across a variety of outcome measures and is particularly evident where the qualification achieved was at the same or higher level than qualifications held prior to participation in an ESF project.

7.1 Introduction

Earlier chapters have discussed the impact of participation in ESF projects on the careers of participants. The effects of participation have been considered in terms of the effects of the interventions upon employment outcomes and earnings, which are key considerations for assessing the value of participation in ESF projects. However, focusing solely on earnings and employment outcomes misses at least part of the picture. Participants have a wide variety of views about what they want from the experience. This chapter considers wider evidence from the survey regarding the outcomes that respondents felt that they gained from their participation. We firstly consider the perceptions of respondents regarding outcomes achieved from the project, including 'soft' outcomes such as increased levels of confidence and the nature of skills gained. We then consider whether respondents report that attendance on an ESF project

helped them get their current jobs or, for those out of work, whether they feel that the course has increased their chance of finding work. Finally, we consider whether ESF participants would, with hindsight, make the same choices again.

7.2 Outcomes from ESF projects

Table 7.1 presents information regarding the perceived benefits of the course reported by respondents. The benefits most commonly cited by respondents were that respondents felt more confident about their capabilities (89%) and that they were feeling better about themselves generally (85%). The largest differences across the Priorities are observed in terms of respondents from Priorities that are focussing upon improving participation in the labour market being more likely to report that they had made new friends, have taken part in more voluntary and community activities or have taken up new hobbies and interests.

Respondents who were employed at the time of the survey and who were either not in employment prior to participating in an ESF project or employed in a different job were asked to what extent they thought that the course helped them get their current job. Table 7.2 shows that 22% of respondents report that their ESF project was vital to them gaining their current employment. No consistent patterns appear to emerge among different groups of respondents. Considering educational attainment, those respondents from Priority 2 of the Convergence Programme with no qualifications were among those most likely to say that ESF was vital to them gaining their current job (27%). Among respondents from Priority 3 of the Convergence Programme, those aged 16-24 were among those most likely to say that ESF was vital to them gaining their current job (29%).

Table 7.1: Outcomes from ESF projects

per cent of respondents

	Con P2	Con P3	Comp P1	Comp P2	Total
More confident about your abilities	86.4	90.2	87.7	91.6	88.7
Feeling better about yourself generally	83.9	85.8	85.7	88.3	85.2
Clearer about the range of opportunities open to you	78.2	84.6	80.7	86.2	82.0
Feeling you have improved employment or career prospects	77.2	83.5	70.2	86.3	81.0
More enthusiastic about learning	79.8	78.1	72.7	79.3	78.9
Clearer about what you want to do in your life	72.5	75.9	78.9	76.2	74.5
Making new friends as a result of the course	72.0	61.1	78.9	57.9	65.5
Feeling more healthy	59.7	58.6	53.6	63.9	59.6
Taking part in more voluntary or community activities	32.9	26.7	43.9	27.1	29.5
Thinking about setting up your own business or working self-employed	20.1	20.8	30.2	26.4	21.2
Taken up new hobbies or interests	16.5	11.1	19.3	10.3	13.4
Sample	3,182	3,502	57	766	7,507

7.3 Was it worth it?

In this section, we specifically consider the contribution of ESF projects to improving levels of educational attainment and how it affects the perceptions of respondents regarding the impacts of these projects. In Table 7.2 we consider differences in the perceptions of survey respondents regarding the impact of their ESF projects according to the changes in the levels of qualifications held that resulted from their participation in an ESF project. The effects of additional qualifications gained from ESF upon a range of impact measures from the survey are considered. It can be seen that ESF projects that do not result in an additional qualification are least likely to be regarded as a) being vital to respondents in getting their current jobs, b) increasing the chance of finding a job in the future and, c) directly resulting in improvements in job characteristics. It is also generally observed that getting a qualification through ESF at the same or higher level than that previously held is also associated with greater perceived benefits than those who gained qualifications at lower levels or at the same level than those previously held.

Table 7.2: Changes in qualifications and perceived impacts of course

per cent of respondents

	Vital in gaining current job					More chance of finding job in the future			Improvements in jobs directly related to ESF		
	All those in a job that was not held prior to participation in ESF					All those not in work at the time of the survey			Those employed at time of survey		
	Con P2	Con P3	Comp P1	Comp P2	Total	Con P2	Comp P1	Total	Con P3	Comp P2	Total
Lower Level	20.9	13.3		10.7	16.4	18.1		17.9	7.2	9.9	7.8
No qualification	13.6	17.9		11.5	15.2	12.1		12.1	3.6	1.7	3.3
Same Level	20.2	26.9		20.5	23.7	33.6		33.3	9.8	8.7	9.6
Higher Level	24.8	33.0		31.5	30.4	31.6		31.0	11.7	11.6	11.7
Transition not determined	23.4	22.3		14.3	22.6	22.7		22.3	10.3	6.7	9.6
Total	20.8	24.1	25.0	20.3	22.1	20.7	7.7	20.4	9.1	8.3	9.0
Sample											

Finally, respondents were asked whether, with the value of hindsight, if they were starting out again, they would: choose to do the same course at the same place; the same course but at a different place; a different course; or to not do a course at all. Responses to these questions are provided in Table 7.3. Across all Priorities, approximately three quarters of respondents indicate that, with the value of hindsight, they would do the course again. The analysis once again demonstrates that participation in ESF projects that resulted in qualifications that were of an equivalent or higher level than those already held are most likely to be associated with higher perceptions regarding whether respondents would do the course again. However, it is also noted that the achievement of a qualification at a lower level than that already held is also associated with higher perceptions regarding whether respondents would do the course again compared with those who did not gain a qualification from ESF. Therefore, whilst improvements in the level of educational attainment that result from ESF are important in terms of the perceived value gained from the course, the achievement of any additional qualification is associated with higher perceived benefits.

Table 7.3: In hindsight would the respondent choose to do the same course again

per cent of respondents

Qualification transition:	Respondent would do the course again				
	Con P2	**Con P3**	**Comp P1**	**Comp P2**	**Total**
Lower Level	81.7	78.2		74.8	78.9
No qualification	63.8	70.1		55.8	66.1
Same Level	75.1	80.2		80.3	78.7
Higher Level	75.5	81.7		83.1	80.5
Transition not determined	77.1	82.1		78.3	79.0
Total	73.7	79.0	75.4	76.9	76.5

These issues are examined further in Table 7.4 which summarises results from multi-variate analysis. In each case, statistical models are estimated to consider after controlling for other characteristics of individuals, what is the separate and additional effect of the qualification transitions that arise due to participation in

ESF upon the perceptions of respondents to the survey regarding the benefits of the course. In each case, the effect of attaining qualifications at a lower, higher or the same level as those held prior to ESF upon perceived benefits of the course are evaluated relative to those individuals who achieved no qualifications from ESF. Relationships that are estimated to be statistically significant are highlighted in bold. It can be seen that across all measures, perceived benefits are significantly lower among those who achieved no qualifications from ESF. Perceived benefits are highest among those who achieved qualifications at the same or higher level to that held prior to their participation in ESF.

Table 7.4: Perceived Benefits of ESF and Qualifications Gained

per cent difference in relative odds

	Qualification Achieved from ESF			
	Lower	None	Same	Higher
Vital in Getting Current Job	-2	ref	**49**	**139**
More Chance of Finding Job in the Future	43	ref	**234**	**291**
Improvements in jobs directly related to ESF	**147**	ref	**247**	**314**
Would do the course again	**106**	ref	**75**	**78**

Chapter 8: Comparing the Transitions of ESF Participants with the Wider Population

Chapter Summary

- Over a period of 12 months, 48% of previously unemployed ESF respondents enter employment during the 12 months since their intervention began compared with 38% among the wider population.

- This differential in employment transitions among the previously unemployed is higher for male participants at 15 percentage points but does not appear to exist for female participants.

- Employment transitions are sensitive to local labour market conditions. Evidence from the Labour Force Survey reveal that unemployed people within areas of low employment are only half as likely to enter employment over a period of 12 months compared with those living in areas with the highest levels of employment.

- Utilising statistical matching techniques, participation of the unemployed within an ESF project aimed at increasing participation in employment increases the rate of transition into paid work by approximately 6 to 9 percentage points. This represents approximately a 13-19% increase in employment share compared with the control group.

- This differential in employment outcomes is estimated to be larger for males (10-14 percentage points). Participation in ESF is not estimated to have a significant effect on employment transitions for women.

8.1 Introduction

Given the scale of the investment made by ESF in Wales, considerable importance is attached to quantifying the effectiveness of ESF programmes in terms of identifying whether or not these programmes have a demonstrable effect on the outcomes of participants. While the 2009 survey provided indicators of ESF impact in terms of improvements in economic circumstances, and progression from inactivity to training and employment, it is still difficult to provide robust conclusions without understanding what participants would have done in the absence of ESF. The 2009 survey report recommended using the

Labour Force Survey (or similar) to provide control groups for future surveys through the use of statistical matching techniques.

Whilst broad comparisons against the LFS were made in the analytical report that accompanied the 2009 Survey, these were made largely for comparison purposes in order to consider the representativeness of ESF participants in relation to the wider working age population in Wales and did not consider the relative outcomes of ESF participants. To address this issue, in this chapter we now consider the application of statistical matching techniques to the 2010 survey to explore whether any conclusions can be made regarding the impact of these ESF upon the subsequent careers of participants. The focus of the analysis is to consider whether participation in ESF projects can be associated with an increase in the likelihood of those participants who were previously out of work gaining employment subsequent to ESF. As such, the analysis concentrates on the relative outcomes of participants in ESF projects where the provision is primarily aimed at those out of work (i.e. Convergence Priority 2; Competitiveness Priority 1).

We have not examined the impact of interventions aimed at those in work as there are more suitable means of examining the effect of education and training upon career progression. There are a number of national surveys that collect information on educational attainment, including information on both the levels and type of qualification being studied for, in combination with a variety of personal, job and workplace related characteristics. The benefits of such qualifications in terms of their impact upon career outcomes can therefore be readily assessed with these surveys. For example, the Labour Force Survey can be used to identify people who have gained a Modern Apprenticeship and to compare the outcomes of this group to others with differing levels of qualifications. The returns to off-the-job and more informal on-the-job training can also be assessed. Many of these issues have been studied previously and there is therefore a large body of evidence related to the returns to educational

attainment. The remainder of the chapter is structured as follows. Section 8.2 outlines the principles of statistical matching in the context of the evaluation of ESF. Section 8.3 provides a brief overview of Propensity Score Matching (PSM), the technique applied in the analysis. Section 8.4 considers the practical issues involved in matching the ESF survey to the LFS. Finally, section 8.5 provides a summary of the key findings.

8.2 The Application of Statistical Matching to ESF

Participation in an ESF project can be viewed as treatment whereby participation (treatment) could favourably affect an outcome measure such as the likelihood of being in employment. Any appraisal of these impacts requires an account of what would have happened to participants in ESF projects if they had not participated in the project (known as the counterfactual). A worthwhile counterfactual therefore implicitly defines a control group or sample whose experiences accurately reflect the hypothetical, unobserved outcomes for the treatment group. Ideally individuals would be allocated to the control and treatment groups at random before participation in ESF commences. Outside of medical research, this ideal is rarely achieved in practice and statistical matching techniques have been developed to provide methods for defining control groups and evaluating treatments in the absence of an initial ideal experimental allocation (see Rosenbaum, 2002; Caliendo and Kopeinig, 2008 and Peel and Makepeace, 2010 for introductions to statistical matching). The idea behind statistical matching is simply to select a group of non-participants in a way that makes them resemble the participants in everything, but the fact of receiving the intervention. If this is done accurately then the outcome observed for the matched group approximates the counterfactual (i.e. what the participants would have done in the absence of ESF), and the effect of the intervention is straightforwardly estimated as the difference between the average outcomes of the two groups.

To estimate the effect of ESF interventions in terms of increasing the likelihood that those out of work prior to participation gain employment following ESF, it is necessary to match participants in ESF projects to individuals within the wider population who have not participated in ESF and who otherwise resemble the ESF participants on all characteristics related to the selection process. The Labour Force Survey (LFS) is used to provide suitable comparators for our treatment group. The effect of ESF on getting people in to employment is estimated by the difference between average rates of employment among previously non-employed participants in ESF (e.g. those who were economically inactive or unemployed) compared with rates of employment among non-ESF participants observed within the LFS. The validity of this approach depends upon the matching process producing two equivalent groups that differ only in terms of their participation in ESF. However, there are two important caveats to be acknowledged at the outset:

- Firstly, statistical matching can only rely on matching individuals on the basis of observable (measurable) characteristics, such as gender, age or qualifications. It cannot take in to account otherwise unobservable characteristics between the treated and non-treated groups. Those who chose to participate in ESF projects have expressed a preference for undertaking activities that are likely to improve their employment prospects. This in itself may indicate that these participants are relatively motivated and are more likely to be successful in the labour market.

- Secondly, we would ideally seek to identify individuals within the LFS who themselves had not participated in some form of ESF funded intervention. One possible way that this could be achieved would be to select upon respondents to the LFS who live in geographical areas where there was no ESF funding (to act as a control area) and create a 'pseudo-sample' comprising individuals from the LFS in the control area and respondents to the ESF survey. In practice, several parts of the UK have access to some

sources of ESF funding, although the intensity of this funding will vary.[5] Furthermore, respondents to the LFS may have participated in some other form of scheme and so it is therefore not clear what the effects of ESF are being compared against. We are only able to compare the relative labour market outcomes of ESF participants with an apparently comparable group from the wider population who may or may not have been in receipt of some form of assistance.

8.3 Overview of Propensity Score Matching[6]

The 2010 ESF Leavers Survey has collected detailed data about the characteristics of individuals who participated in an ESF project in Wales. However, suppose all that was known about ESF participants was their gender and whether they had a qualification or not. Statistical matching would involve finding a comparable person in the control group from the Labour Force Survey for each person in the treatment group – referred to as one to one matching. In this simplistic example, a male with a qualification in the treatment group would be matched with a male with a qualification in the control group. It would then be possible to compare the outcomes for the matched control and treated groups. This example involves exact matching on characteristics (matching on covariates). One practical problem with matching is the 'curse of dimensionality'. This occurs when one or more of the attributes takes many different values and there are several different attributes. The previous example matched individuals along four dimensions (two genders combined with two qualification levels). However, if we moved to people being allocated to one of ten age bands, five levels for qualification as well as gender, then individuals would be allocated to one of 100 unique categories. Given this level of detail, it would become much harder to achieve substantial numbers of good matches from available survey data. This problem is likely to be severe because, as has been demonstrated in previous chapters, both the ESF survey and the LFS collect detailed information

[5] See http://www.dwp.gov.uk/esf/about-esf

[6] Technical descriptions of some of the key concepts behind Propensity Score Matching are discussed in Annex 3.

on many different measurable attributes that we would wish to incorporate as information upon which individuals in the two data sources could be matched.

Propensity score matching resolves the 'curse of dimensionality' by estimating the probability of participating in ESF and creating a control group by matching ESF participants with non-ESF participants who have similar propensity scores (see Rosenbaum and Rubin, 1983). The propensity score can be derived from a statistical model that estimates the probability of being in receipt of an intervention based upon the observable characteristics of non-ESF participants from external survey data. In terms of implementing this in practice, data from the ESF Survey is appended to data from the LFS for those data items that appear in both surveys. Individuals in the combined data set are distinguished in terms of whether their response came from the ESF survey (indicating that they have been in receipt of an ESF intervention) or whether they came from the LFS. Analysis is then undertaken to estimate what characteristics are associated with an individual in the combined data set coming from the ESF survey or the LFS. This process allows the identification of which characteristics are associated with people being more likely to be included in the ESF survey (as measured by their propensity score). Participants and non-participants of ESF can then be matched on the basis of their propensity score; their estimated probability of being a recipient of ESF given their observable characteristics.

An attempt is made to match each ESF participant to someone from the wider population who is most similar in terms of their probability of being an ESF participant, where this probability is calculated on the basis of individual characteristics. It may not be possible to successfully match all ESF participants. However, it would be expected that from the wider population it should be possible to identify a group of individuals who did not participate in an ESF project but who do have the personal characteristics that are typical of an ESF participant and can therefore usefully act as a control group. The existence of a substantial overlap between the characteristics of beneficiaries and non-

beneficiaries (referred to as 'common support') is another requirement for the applicability of this method. The fundamental assumption for the validity of matching is that, when observable characteristics are balanced between the two groups, the two groups are balanced with respect to all the characteristics relevant for the outcome. Once the two groups are formed, the effect of the ESF intervention can be estimated by simply comparing differences in outcome measures between the two groups.

There are a number of different PSM techniques that can be applied. In the simplest case of the 'nearest neighbour' method, the control group is created by matching each treated person to the untreated person with nearest propensity score. This technique may be refined by imposing a minimum acceptable difference in scores (a calliper) and allowing an untreated person to be matched to more than one treated person (matching with replacement). There is no objective 'test' of the correct method to be used and judgements are required to be made in the context of the characteristics of the data sets being matched. In the present analysis, we utilise several different techniques in order to consider the sensitivity of results to the choice of matching technique.

8.4 Practical Issues in Linking the ESF Survey and LFS

The 2010 ESF Leavers Survey was conducted among people who participated in projects funded under both the Convergence and Competitiveness Programmes. Given the emphasis of the matching work, the analysis will focus upon the employment outcomes of those people who participated in projects under both Priority 2 of the Convergence Programme (West Wales and the Valleys) and Priority 1 of the Competitiveness Programme (East Wales). Both sets of projects are interventions that are specifically targeted at improving participation in the labour market and paid employment. In practice, the ESF Survey achieved far many more responses from participants under Convergence Priority 2 (3,182 respondents) than under Competitiveness Priority 1 (57 respondents). Whilst the data from respondents participating in the Competitiveness Programme have

been retained, the analysis can largely be assumed to represent an examination of the outcomes of ESF Convergence Priority 2

The key piece of information required from the LFS in terms of assessing the relative outcomes of ESF participants is a measure of the change in an individual's economic activity status that is measured over a period of time that is broadly comparable to the time elapsed between current and pre-ESF activity among respondents to the ESF survey. For this purpose, we utilise a question from the LFS which is asked during the second calendar quarter of each year (April-June). During this quarter, the LFS asks respondents about their labour market circumstances one year previously. As a large national survey that provides key information in relation to the operation of the UK labour market, there is inevitably a significant time lag between conducting interviews for the LFS and the release of that data to the research community. At the time of writing, the latest available data containing information about what respondents were doing 12 months previously is April-June 2010. To increase the available sample sizes from the LFS to ensure that there are sufficient numbers of people in the LFS sample to match ESF respondents against, we combine LFS data from 2008, 2009 and 2010. The LFS data used in the matching exercise therefore pre-dates the information available from the ESF survey.

In Chapter 5 we presented a comparison of the economic activity of respondents prior to ESF with that measured at the time of the survey. However, given a) the varying duration of ESF interventions and b) the different end dates at which respondents completed these interventions, the length of time that had elapsed between pre-ESF and post-ESF activities may vary considerably between respondents. In terms of the duration of intervention, a majority of Convergence Priority 2 interventions last for a period of less than 12 months (90%), with 72% lasting for less than six months (see Table 3.1). Over a third of Convergence Priority 2 respondents (35%) participated in an intervention that was recorded as lasting for less than one month. The distributions of responses by ESF completion date are shown in Annex A1. The distribution of responses is shown

to be relatively even across the year, although a majority (54%) of respondents had completed their interventions during the first six months of 2010, with some clustering around the summer months in terms of date of completion (14% of respondents completed ESF during July 2010). Therefore, varying lengths of time had elapsed between the completion of these projects and the data at which respondents were interviewed.

Varying lengths of time have therefore elapsed for ESF respondents between their pre ESF activity and their activity at the time of the survey will need to be taken in to account in the statistical matching work. However, an important component of the ESF survey was that, in addition to being asked about their current activity, respondents were asked to provide a dated monthly account of what they had done since the completion of their ESF project. Depending upon the date when they completed their ESF project and the timing of the survey, the ESF survey collects career history data that for some respondents covers a period of up to 19 months (i.e. for those who completed their intervention in January 2010 and responded to the survey in July 2011). This career history data has been used to identify their activity status at a point 12 months after the beginning of their course. Taking this approach does have the disadvantage of reducing the available sample size that can be used from the ESF survey for two reasons. Firstly, those respondents who were on an intervention that lasted longer than 12 months are excluded from the analysis. Secondly, among those respondents who completed an ESF project of short duration (e.g. less than 3 months) during the last quarter of 2010, it is unlikely that 12 months would have elapsed between their pre-ESF activity and the most recent activity recorded by the ESF survey.

The ESF Survey also interviewed those who were recorded as having left their course early. Both administrative and survey data reveals that approximately 11-12% of respondents withdrew from their ESF intervention early. There was some level of disagreement between administrative records and the perceptions of

respondents to the survey regarding whether or not they had withdrawn from ESF early. This is likely to reflect complexities surrounding the context for withdrawal from ESF. For example, a commonly cited reason for early withdrawal among survey respondents was that the respondent had found a job. Therefore, withdrawal cannot necessarily be viewed negatively and can indeed indicate that the ESF intervention had been successful. Nonetheless, it remains the case that people do withdraw from ESF projects early and therefore are less likely to have benefited fully from the intervention. The sample of ESF respondents selected for statistical matching therefore excludes those who withdrew early from ESF (as recorded by the survey). This is with the exception of those who withdrew because they found jobs who are retained in the sample.

Finally, propensity score matching assumes that, conditional on the propensity score, selection bias between the treatment and control group can be eliminated by the inclusion of a set of variables that can control for all the other differences that exist between the two groups. The omission of important variables will mean that estimates of the impact of participating in an ESF project will be biased. Only variables that are unaffected by participation within an ESF project should be included in the matching model. This can be ensured if variables are only included if they are fixed over time or are measured before participation. For this exercise, age, educational attainment, ethnicity, work limiting illness and local area employment rates are used as matching variables. In both the ESF Survey and the LFS, some of these measures will be time invariant (e.g. gender, ethnicity). Given that we are observing people over a period of 12 months, age will vary by an equal amount among both groups. Other information about individuals used in the matching process are being measured at the time of these surveys, such as their health status (whether or not they suffer from a work-related ill-health condition), partnership status (single, couple or living in the parental home) and family status (age of youngest child). In the case of educational attainment, the ESF survey records information on qualifications held

prior to ESF whilst the LFS data relates to the educational attainment of respondents at the time of the survey.

The larger the number of characteristics that are available for matching, the higher the likelihood that statistical matching can correct for differences in the relative characteristics of those in the ESF and LFS samples (i.e. achieve a balanced sample). Restricting the PSM to the limited selection of time invariant variables (gender, ethnicity and age) would not be expected to yield accurate matches. Among those measures that could be expected to change over time, in practice only a small proportion of respondents to both surveys will experience a change in their health, partnership and family status over a period of 12 months and that there is little reason to believe that such changes will differ between those in the ESF and LFS samples. Although violating some of the assumptions behind PSM, the variables utilised represent a pragmatic choice given the available data.

8.5 Comparisons of Transitions From the ESF and LFS Samples

This section makes a simple comparison of the labour market transitions of ESF participants (the treated group) with a group selected from the LFS (the control group). In both cases, Table 8.1 considers the relative transitions of those who are initially unemployed or economically inactive and consider the relative incidence with which a person moves from unemployment or inactivity into work after a period of one year. No restrictions have been placed on the LFS sample which at this stage shows the average level of transitions exhibited by all economically inactive and unemployed people in the LFS sample in to paid employment. Among the non-employed, simple comparisons between the two samples suggests that the ESF funding has been successful because 43% of its out-of-work participants moved into work compared with only 13% of the LFS sample. However, such comparisons reflect the relative composition of the two samples. A large majority of the non-employed participating in ESF projects are

unemployed. In contrast, within the wider population the economically inactive represent the majority of the non-working population.

Table 8.1: Comparing Labour Market Transitions of ESF and LFS Respondents

per cent of respondents

	2010 ESF Survey		LFS 2008/2010
	All	Excluding Continuously Employed Prior to ESF	
Non-Employed			
Female	32.1%	29.4%	11.8%
Male	49.7%	44.4%	16.2%
Total	42.6%	37.9%	13.3%
Unemployed			
Female	40.6%	36.3%	40.5%
Male	51.8%	45.5%	36.8%
Total	48.1%	42.1%	38.3%
Inactive			
Female	14.2%	13.8%	9.2%
Male	28.2%	31.8%	9.5%
Total	18.3%	18.4%	9.3%

More meaningful 'like for like' comparisons can be made by comparing the labour market transitions of the unemployed. Within both surveys, the classification of an individual as unemployed implies that that person was looking for work. Among previously unemployed ESF participants, 48% are in employment some 12 months following the commencement of their project. This is compared to an employment transition rate of 38% among the wider unemployed population, a differential of 10 percentage points. It is also interesting to note that when making separate comparisons for men and women, the size of this differential widens to 15 percentage points for men but is no longer present for women. Among former ESF participants who were previously economically inactive, 18% are in employment some 12 months following the beginning of their project, twice the rate exhibited among the wider population of economically inactive. This larger relative differential reflects the wide variety of circumstances and

preferences exhibited by the economically inactive in the wider population. Whilst economically inactive participants in ESF projects will generally be taking steps to improve their employability, many of the economically inactive among the wider population will not be looking for work (e.g. those with caring responsibilities, students). This highlights the importance of 'selection effects' in attempting to understand the impact of ESF projects upon employment.

Finally, to further examine the robustness of the comparisons, Table 8.1 also examines the transition rates of non-employed ESF respondents which excludes those people who, despite being unemployed or economically inactive prior to ESF, describe their time since compulsory education as one of being continuously in paid employment. As would be expected, a relatively high proportion of Convergence Priority 2 respondents were not in paid employment prior to their ESF project, with 79% being either unemployed (63%) or economically inactive (16%). However, such a 'snap shot' picture of the economic characteristics of participants in ESF does not provide an accurate account of their labour market experiences. Among Convergence Priority 2 respondents, 25% describe that since completing full time education they would describe their careers as being continuously employed. A further 39% report that they had been in paid work for most of this time, with only occasional spells away from paid employment (see Table 2.2).

This is of significant importance in terms of the employability or 'job-readiness' of such participants. Although many of the interventions funded under Convergence Priority 2 are generally short in duration and often focus on generic skills such as team-working, organisational skills or communication skills rather than resulting in a qualification, some of these projects are aimed at people who are relatively employable. This is exemplified by the Redundancy Action Scheme (ReAct), a programme that provides funding for training for those who are facing redundancy. The relative focus of such ESF interventions on those who have recently lost their jobs may be expected to contribute to higher

transition rates than those observed in the wider non-employed population. Among ESF participants, it can be seen that excluding such individuals reduces the employment transition rates among the previously unemployed by 6 percentage points to 42%. Among males, it remains the case that transitions in to employment are higher among ESF participants (a differential of 9 percentage points). However, among women the rate of transition in to employment is lower among ESF participants than it is among the wider population. However, the ESF sample and LFS samples may vary across a variety of characteristics that could contribute to the differences in transition rates shown in Table 8.1.

Finally, in terms of matching individuals from the ESF survey to comparable groups of respondents to the LFS, local labour conditions are also likely to influence the likelihood with which somebody moves in to employment. This issue is examined in Table 8.2 which provides estimates of employment transitions among LFS respondents by local area employment. It can be seen that among LFS respondents living within the ten per cent of Unitary Authorities that have the lowest rates of employment (measured among the non-student population of working), only 29% of the unemployed move in to paid work 12 months later. This is in contrast to those living within the ten per cent of Unitary Authorities that have the highest rates of employment where 52% of the unemployed have moved in to paid work 12 months later. A similar relationship emerges among the economically inactive, where those living within areas of high employment are more than twice as likely to move in to paid employment than those living in areas of low employment (12% compared to 6%).

Such differences are of particular relevance to examining the effects of ESF on employment transitions. Six out of the 15 Unitary Authorities covered under the Convergence Programme Area have rates of employment that place them within the bottom decile of UK Unitary Authorities (Neath Port Talbot, Rhondda Cynon Taff, Merthyr, Caerphilly, Blaenau Gwent and Torfaen). Anglesey, Pembrokeshire and Bridgend also fall within the bottom quintile of Unitary

Authorities when ranked in terms of rates of employment. The employment rates exhibited by ESF participants are considerably higher than LFS respondents living within areas with similarly low levels of participation in employment among the population of working age. Local labour market conditions should therefore be taken in to account when attempting to make like for like comparisons between participants in ESF projects and respondents to the LFS. In additional to individual characteristics described above, local area employment rates (as measured by deciles) will be included as additional variables for the purpose of PSM.

Table 8.2: Transitions Among LFS Respondents into Employment by Local Area Employment Rates

per cent of respondents

Unitary Authority Employment Rates (Deciles)	**Unemployed**	**Economically Inactive**	**All Non-Employed**
1st Decile (<68.8%)	29.2%	5.7%	9.5%
2nd Decile (68.8-70.7%)	32.3%	7.1%	11.0%
3rd Decile (70.7-73.3%)	33.1%	8.9%	11.8%
4th Decile (73.3-74.4%)	33.8%	10.0%	13.6%
5th Decile (74.4-75.7%)	34.8%	8.4%	12.4%
6th Decile (75.7-76.6%)	41.6%	9.1%	13.5%
7th Decile (76.6-78.0%)	41.2%	10.4%	14.6%
8th Decile (78.0-79.5%)	44.0%	10.0%	14.0%
9th Decile (79.5-80.8%)	46.9%	11.3%	15.8%
10th Decile (>80.8%)	51.7%	11.9%	16.8%
Total	38.3%	9.3%	13.3%

8.6 Results of Propensity Score Matching

Table 8.3 shows a selection of results derived from the Propensity Score Matching with results being presented for all those who were non-employed 12 months previously and then separately for the unemployed and the economically inactive. The table examines the sensitivity of the estimates to changes in the matching techniques used. The most straightforward matching estimator is nearest neighbour matching (referred to in Table 8.3 as '1:1'). One individual

from the comparison group is chosen as a matching partner for a treated individual that is closest in terms of propensity score. Results of matching based on both the two variants of nearest neighbour matching, 'with replacement' and 'without replacement' are also presented. Matching without replacement makes the closest match between the control and treated observation and removes the corresponding control from the list available for matching. Matching with replacement allows each control to be potentially matched to more than one treated observation. After each match is made, the control is returned to the pool available for matching. Allowing replacement may improve the quality of matches when there are relatively few people in the control sample as the matching process does not have to resort to matching against increasingly different individuals in the control sample. However, the number of different non-participants used to construct the control group decreases, resulting in an increased variance of the estimator.

Nearest neighbour matching may result in poor matches especially if the number in the control sample is small so a calliper is often specified. The calliper specifies a maximum acceptable difference between the two propensity scores. As the calliper reduces in value the quality of matches improves (the treated are closer to the controls) but the number of successful matches decreases. As with replacement, the imposition of a calliper can avoid bad matches being made. However, if fewer matches are made the variance of the estimator may increase resulting in statistically insignificant results. Finally, a variant of calliper matching is used called radius matching. This essentially compares the outcome for the treated observation with the average outcome from a group of untreated observations that have propensity scores within a specified range (radius) of the propensity score of the treated observation. This option is preferred where there are a large number of potential exact matches, which is more likely when matching is done largely on the basis of categorical data, as is the case within the present exercise. Our preferred estimates are therefore for radius matching which matches a relatively large subset of the treatment sample with a mix of

observations from the control sample. In practise, the choice of estimation strategy does not generally change the nature of these results and so for ease of exposition we will discuss the results derived using radius matching.

Finally, we consider the sensitivity of our results to the omission of ESF participants from the statistical matching work who report that since leaving full time education that they had continuously been in paid employment. As described earlier, some ESF interventions are aimed at groups of people who, despite being out of work at the time their ESF project had begun, are relatively employable. Rates of employment among participants in some ESF projects may therefore be expected to be higher than that which typically characterises the non-employed. The exclusion and inclusion of this group of respondents therefore results in the estimation of 'pairs' of results that can be regarded as 'lower' and 'upper' bound estimates respectively.

It can be seen from Table 8.3 that similar results are estimated for the non-employed, unemployed and economically inactive. It is estimated that participation within an ESF project increases the rate of transition into paid work by approximately 6 to 9 percentage points based upon the radius technique. These estimates are generally statistically significant. Among the unemployed, the rate of employment among a control group of respondents from the LFS who were unemployed some 12 months earlier is 51%. This increase in employment share therefore represents approximately a 13-19% increase in employment share compared with the control group. Among the economically inactive control group, the rate of employment among the control group of respondents from the LFS is lower at approximately 19%. This increase in employment therefore represents approximately a 32-47% increase in employment share among ESF participants compared with the control group.

Table 8.3: PSM Results for All Non-Employed, Unemployed and Economically Inactive

	Calliper	None		0.001		0.0001	
		Upper	Lower	Upper	Lower	Upper	Lower
All Non-Employed	1:1 No replacement	11.5** 1,168	9.3** 886	10.7** 896	9.2** 717	10.4** 759	8.9** 608
	1:1 With replacement	6.9** 1,168	9.0** 886	8.6** 1080	8.8** 830	9.6** 928	9.3** 706
	Radius			8.9** 1080	6.2** 830	9.3** 928	6.7** 706
Unemployed	1:1 No replacement	12.6** 963	7.3** 735	13.2** 686	8.3** 554	13.4** 546	5.4* 458
	1:1 With replacement	11.5** 963	5.3** 735	12.9** 876	2.9 680	12.0** 710	2.2 556
	Radius			12.6** 876	5.8** 680	9.7** 710	6.0** 556
Economically Inactive	1:1 No replacement	5.9* 205	5.9 151	6.6* 197	6.9* 145	5.3 188	5.9 136
	1:1 With replacement	6.8* 205	3.3 151	7.7* 197	4.8 146	7.4* 189	4.4 136
	Radius			9.5** 197	7.4** 146	9.3** 189	6.1* 136

**/* denotes statistical significance at the 1%/5% level respectively

The relatively large effect estimated for the economically inactive must however be treated with caution. Seemingly comparable individuals may actually differ considerably depending upon their motivations and preferences for paid employment. The economically inactive are a diverse group and whilst statistical matching can be undertaken on the basis of observed characteristics, it nonetheless remains the case that the economically inactive who participate in ESF projects are by definition expressing a willingness to undertake training and other activities that will increase their employability. Low transition rates observed among the economically inactive within the wider population will reflect the fact that many among this group do not have an interest in gaining employment. The

effect of ESF upon participation in paid employment is likely to be more accurately captured by considering the relative experiences of the unemployed given that we may expect to observe relative homogeneity among the unemployed population across the different parts of the UK (i.e. they are out of work and are seeking work).

A number of revisions were made to the analysis to examine the sensitivity of the results to different specifications of the PSM modelling. The results were not sensitive to the omission of data from the LFS that was provided by proxy respondents. The exclusion of those from the ESF sample who withdrew from their projects early could also be considered as upwardly biasing the estimated outcomes of ESF participants. However, the inclusion of withdrawers in the 'treated' sample again did not affect the results.

Further analysis was undertaken to consider whether the estimated effect of ESF was sensitive to the level of employment within the local economy. Whilst the local area employment rate was used as a 'matching' variable, it is of interest to consider whether the effect of ESF is only observed in the most deprived areas. Results of the analysis are presented in Annex 4. The estimated effect of ESF declines when the analysis is restricted to local areas that are in the lowest quintile (9 of the 15 local authorities in the Convergence Area) and decile (6 out of 15 local authorities) of local authorities when ranked on the basis of their employment rates. Results derived from Radius matching indicated that this restriction reduced the effect of ESF to an increase in employment of approximately 5 percentage points. However, making these restrictions limits the sample size available for analysis and so results were not generally statistically significant.

Finally, the descriptive analysis presented in Table 8.1 indicated that female ESF participants did not appear to exhibit such favourable rates of transition in to employment compared with their male colleagues. To consider this issue in

further detail, PSM analysis among the unemployed group is undertaken separately for men and women. The choice to restrict the analysis to the unemployed is driven both by data limitations (there are relatively few men within the ESF sample who indicate that they are economically inactive) and concerns regarding the comparability of economically inactive women who choose to participate in ESF compared with economically inactive women more generally. The results of the analysis are presented in Table 8.4.

Table 8.4: PSM Results for Unemployed: by Gender

	Calliper	**None**		**0.001**		**0.0001**	
Unemployed		Upper	Lower	Upper	Lower	Upper	Lower
Males	1:1	16.6**	10.9**	20.4**	10.3**	17.7**	13.0**
	No replacement	642	470	450	351	368	293
	1:1	17.6**	11.7**	19.7**	14.0**	18.6**	14.8**
	With replacement	642	470	576	419	485	359
	Radius			16.7**	11.1**	14.3**	10.4**
				576	419	485	359
Females	1:1	5.9	2.6	3.0	0.0	0.0	-4.6
	No replacement	321	265	196	166	152	130
	1:1	5.0	-5.7	6.7	-6.0	3.2	-10.8
	With replacement	321	265	255	214	190	166
	Radius			3.5	0.0	0.0	-3.3
				255	214	190	166

It is estimated that participation within an ESF programme increases the rate of transition into paid work among unemployed men by approximately 10 to 14 percentage points based upon the radius technique. Among the unemployed men, the rate of employment among a control group of respondents from the LFS who were either unemployed some 12 months earlier is 48%. This increase in employment share therefore represents approximately a 20-27% increase in employment share compared with the control group. No statistically significant estimates are derived for women. The reasons for this are unclear. Labour markets characterised by high levels of unemployment are also generally characterised by high levels of economic inactivity, sometimes referred to as

'hidden unemployment' or 'discouraged workers'. In face of seemingly insurmountable problems in gaining employment, women may be more likely to withdraw from searching for unemployment and instead fall into economic inactivity, such as caring for the family or dependents. It has also been noted that some of the matching variables used in the analysis are not time invariant. It may be the case that changes in health or family structure may have larger implications for women than men. For example, for males the transition from being single to married or cohabiting or from having no children to having a dependent child may not have any effect on that individual's preference for work over other alternatives. Indeed, such individuals may be expected to exhibit an increased commitment to gaining paid work given the additional resources required to support their family. Among women, the effects of these same transitions on participation in the labour market may be different. For some, these transitions could signal a withdrawal from actively seeking paid employment. The utilisation of longitudinal data sources that can accurately measure the characteristics of individuals at the beginning of the period over which transitions are being compared may help to address these concerns.

Finally, it is important to underline the importance of a potential limitation to the statistical matching work. Even among a group of people from the ESF and LFS surveys who report that they are unemployed (i.e. actively seeking work), participation in an ESF project may be expected to be correlated with a variety of characteristics that make this group relatively employable compared to the unemployed within the general population. By participating on a course, they have demonstrated the motivation to engage in a range of activities that will improve their chances in the labour market. In some cases such as the ReAct project, ESF projects actively target people who may have only recently lost their jobs in order to help them find work quickly and before their skills depreciate as a result of a prolonged period out of paid employment. Although this strategy would seem sensible, it makes comparisons with the wider unemployed population of unemployed people from the LFS more problematic.

Chapter 9: Conclusions and Recommendations

9.1 Introduction

The 2010 ESF Leavers Survey builds on the evidence contained in the 2009 ESF Leavers Survey. Taken together, the two surveys provide a detailed account of the characteristics and outcomes of almost 12,000 people who had participated in an ESF project during 2009 and 2010. In this chapter we firstly summarize some of the key findings from the survey and then present our recommendations. Recommendations are considered separately in relation to policy recommendations (Section 10.3) and recommendations related to further research.

9.2 Overview of Findings

In terms of the findings from the 2010 survey, it is clear that **Priorities focused on workforce development** (Priority 3 of the Convergence Programme and Priority 2 of the Competitiveness Programme) are making a significant contribution to moving the employed workforce up the qualifications 'ladder'. For example, the proportion of ESF participants with a qualification at NVQ level 3 or above (increasingly seen as the minimum necessary for successful labour market participation) increased from 39% before participation to 51% at the time of the survey in the case of the Convergence Programme and from 26.6% to 44.2% in the case of the Competitiveness Programme.

Moreover, outcomes in terms of improved job conditions and satisfaction after participation also appear positive – particularly for those changing jobs – with the attainment of qualifications through the ESF provision being reflected in increases in pay, though only a relatively small proportion of participants (around 9%) said that these changes were *directly* related to the ESF support.

At the same time, the low level of participation in ESF projects by some of the groups within the workforce least likely to be offered training by employers might be a source of some concern: only 6% of the employed participants were over 55, compared with 14% of the employed workforce and the proportion of participants with a work-limiting illness was lower than that for the employed workforce as a whole (partly reflecting the younger age profile of participants).

Turning to the **Priorities targeted at supporting the unemployed and economically inactive (**Priority 2 of the Convergence Programme and Priority 1 of the Competitiveness Programme[7]), the 2010 Survey confirms the picture from the 2009 Leavers Survey of ESF being associated with a relatively high level of transition for non-working, and particularly unemployed ESF participants into employment, revealing that almost half of those who were unemployed before joining an ESF project (defined here as not currently working but actively seeking work) had found employment within 12 months of completing the provision. Transitions were found to be much lower for the economically inactive, though here too, one-fifth of participants who were economically inactive either moved into paid employment (13%) or into full time education and training (7%).

By comparing outcomes from participants in the Leavers Survey with those for the wider population of the unemployed as recorded in the LFS, using Propensity Score Matching, the study has gone further by confirming that ESF support has resulted in a significant improvement in labour market outcomes for unemployed participants: it appears that participation in ESF increases the rate of transition into employment for previously unemployed individuals by between 6 and 9 percentage points over a 12 month period, representing an increase of between 13 and 19% in terms of employment share. However, the analysis suggests that the positive link between ESF participation and elevated transitions into employment only holds true for men: for unemployed females, there is no

[7] Although the very limited number of respondents who had benefited from support from Priority 1 of the Competitiveness Programme needs to be noted.

statistically significant effect of participating in ESF. The absence of a demonstrable impact of ESF for women is consistent with their lower rates of transition into employment observed from the ESF survey. This is clearly challenging, given that women represent some 39% of all participants in ESF Convergence Priority 2 and 42% of all ESF participants in ESF Competitiveness Priority 1 to date[8].

The 2010 survey also confirms the picture from the 2009 Survey that ESF projects funded under Priority 2 of the Convergence Programme[9] appear to be working with groups who are less distant from the labour market than was intended when the Programmes were written (though, of course, this reflects in part the very different economic and labour market climate). The clear policy intention was for a strong focus for this Priority on 'the economically inactive, with the aim of helping them into sustained employment' with support also being made available to 'the unemployed who face particular disadvantage and need support beyond that available under mainstream provision'[10]. In practice, many of the participants appear to be those who have been unemployed for relatively short periods.

To some extent this is distorted by the fact that the survey uses a definition of 'unemployed' which is in line with that of the LFS rather than that used in the Programming documents (where it is restricted to claimants of Job Seekers Allowance). It is also true that non-employed ESF participants were generally less well qualified than the workforce – and indeed the non-employed working age population – as a whole. However, the survey shows that more than 55% of all non-employed participants had been out of work for less than 12 months, while 70% of Priority 2 participants characterized their own labour market history as being 'in paid work for most of the time' (38%), 'continuously in paid

[8] Papers to the All Wales Programme Monitoring Committee meeting of 2 December 2011
[9] This appears true also of Priority 1 of the Competitiveness Programme, but as the number of respondents was so small, this is less clear-cut.
[10] Operational Programme p.127

employment' (24%) or ' continuously in education or training' (8%). Moreover, only 17% of Priority 2 survey respondents said that they had work-limiting health conditions, despite the fact that almost half of the all the economically inactive people in Wales have such conditions. The high rates of transition into employment among unemployed respondents to the survey compared with those observed in the wider population suggests that respondents to the ESF survey may not be representative of the wider unemployed population, though it should be noted at this point that transition rates of unemployed ESF participants were compared with transition rates of unemployed non-participants with similar observable characteristics. It is therefore possible that, in light of changed economic circumstances, and with increased flows into unemployment, the 'willing unemployed' have been squeezing out the hard core long term economically inactive who were the original target for these interventions.

While in many ways this may not be desirable, the clear evidence of enhanced employment outcomes for this group compared with unemployed individuals with similar characteristics but who have not benefited from ESF lead to something of a conundrum, particularly with the onset of the Work Programme: should WEFO attempt to refocus the Programmes back to the most difficult groups, when its interventions with the more work ready groups are effective?

The research also suggests that, while the employment outcomes of the Programmes are positive, the jobs accessed are clearly generally of quite poor quality, with average wages of only £249 (£310 for those working more than 30 hours) and with a third employed as operatives (e.g. factory workers) or in low skilled elementary occupations (e.g. cleaning, labouring, packing etc). Perhaps this is inevitable, given labour market conditions, though it needs to be remembered that many of these participants do have previous labour market experience.

More generally, the evidence from the 2010 Leavers Survey suggests a range of positive 'softer' outcomes for participants across all Priorities. The vast majority of respondents reported benefits in terms of self-confidence, their enthusiasm for learning and the feeling that they had improved their career or employment prospects: while around 28% of participants had gone on to further learning (with almost 60% of these saying that participation in ESF had played a role in this progression). More than 70% of participants also cited enhancement of communication skills, team working skills, organizational skills and problem-solving skills, while more than 50% felt that the provision had improved their literacy and numeracy. More than three quarters said that they would do the same course again. As in the 2009 Survey, around 60% of participants were aware that ESF had provided support.

Perhaps unsurprisingly, the survey suggests many of the benefits of ESF participation are experienced differently by different groups of participants – with the level of prior qualifications, for example, being a strong differentiator in terms of job satisfaction and wages after ESF support. More interestingly, however, the survey again highlights the important difference which the nature of the ESF provision can make. In particular, the research highlights the strong influence of qualifications on both the individual's *perceptions* of the benefits provided by ESF and on actual outcomes in terms of the likelihood of being in employment after ESF support. However, whereas *any* qualification was associated with perceived positive benefits, more concrete benefits such as enhanced employment outcomes and increases in pay were associated much more strongly with qualifications which were at a level equivalent to or superior to that previously held by the individual. This highlights the importance of ESF provision in 'stretching' participants by offering them access to qualifications at higher levels and to some extent raises doubts about the significant proportion of provision which does not lead to qualification outcomes.

While it is important to stress that qualifications which are at a level below that already held by an individual can be of benefit in certain circumstances (where, for example, an individual is retraining in a wholly different sector, or has academic qualifications and is using ESF to secure relevant vocational ones), these findings do suggest the importance of ensuring that projects focus more clearly on the appropriateness of the intervention to the specific individuals being recruited, particularly in terms of prior qualifications.

9.3 Recommendations

In the light of these findings we recommend, in terms of policy;

Recommendation 1: WEFO and the All Wales Programme Monitoring Committee should consider how far the changed economic and labour market circumstances justify the apparent continued strong focus by projects on those who are unemployed but are not amongst the 'hardest to reach' groups originally targeted by Priority 2 of the Convergence Programme and Priority 1 of the Competitiveness Programme (including older workers, those with work-limiting conditions and those with no or only patchy experience of participation in the labour market), particularly in the light of changes to UK Government policies, in particular the introduction of the Work Programme.

Recommendation 2: WEFO should consider how far projects aimed at those already in employment can be encouraged to ensure that they are challenging any reluctance on the part of employers to put forward older workers and those with work-limiting conditions as participants in ESF projects.

Recommendation 3: In the light of the evidence on the clear relationship between the achievement of qualifications (and more specifically qualifications at a higher level than those already held by the individual participant) and positive outcomes, WEFO needs to encourage projects wherever possible a) to ensure provision includes some accreditation of learning b) screen participants to ensure that those recruited are those most likely to benefit from the specific intervention

(in particular, focusing on those with no or lower level qualifications than those being offered).

Recommendation 4: WEFO needs to continue efforts to ensure that participants are made aware that ESF is supporting the provision.

In terms of recommendations for further research,

Recommendation 5: An important innovation with the 2010 ESF Survey has been the utilization of PSM techniques in combination with other sources of survey data to generate control groups against which the effectiveness of ESF programmes can be evaluated. The design of future Leavers Surveys should ensure that opportunities for statistical matching are retained. This implies that future contractors collect data in a way that is consistent with key surveys conducted by the Office for National Statistics, government departments and, where appropriate, other academic studies (e.g. the ESRC funded Understanding Society).

Recommendation 6: This report has provided an account of data collected from the 2010 survey. Nonetheless, it should be acknowledged that combining data from across the 2009 and 2010 surveys could considerably enhance the value of the data collected over the last two years. Such an approach would allow for a detailed understanding of what types of intervention work requires examination of data at a project level or for groups of projects that share similar characteristics. This does not imply splitting the data set up for separate projects, but instead analyzing of the whole data set in a way in which the differential effects of separate projects are considered relative to each other. A further application of this approach would be to undertake analysis for sub-regions within Wales.

Recommendation 7: There remained a number of limitations to the PSM based analysis that could not be overcome within the timescale of this project. However, the passing of time will provide further opportunities for researchers to improve upon the PSM analysis presented in this report. In order to facilitate

this, WEFO should explore ways in which the ESF Survey data sets can be available to researchers for secondary analysis. WG investments such as the Secure Anonymised Information Linkage project at Swansea University could provide ways of managing research access and linking the survey data to other sources of information the WG holds about these respondents. Mechanisms for commissioning such secondary analysis should also be explored (e.g. Welsh Government Economic Research Grants tied to ESF based research, studentships, placement fellowships). Such research may help to cast light on the apparent gender differential in labour market transitions among participants in ESF projects.

Recommendation 8: In the light of the wide discrepancies in the administrative data and the survey data with regard to early withdrawal, and the evidence from the survey that early withdrawal may often be the result of a positive labour market outcome, further research would be valuable in understanding the proportion of early withdrawal which is problematic and good practice in preventing it.

Recommendation 9: Further thought is needed as to the definition of 'unemployed' used in future surveys, given the current use of the term in the context of the Operational Programmes refers only to those currently claiming Job Seekers Allowance (though this is of course inconsistent with the wider LFS definition of unemployment used in the Government's preferred measure of unemployment). A definition related to benefit claims could also be introduced.

Recommendation 10: The ESF Survey has demonstrated the value added that can be achieved through the use of PSM techniques. Nonetheless, such surveys inevitably suffer from problems of response bias which, in the case of the unobserved characteristics, are particularly difficult to overcome. Weighting survey data based upon observable characteristics cannot overcome difficulties associated with unobservable characteristics that are themselves correlated with an increased likelihood of response (e.g. motivation). An alternative (or complementary) approach is to explore whether administrative sources of data

are available which allow the labour market experiences of all ESF participants to be tracked. The DWP Lifetime Labour Market Database would be likely to be a key source of data in this respect. This would also allow a longer term panel analysis of former ESF participants to track the long term impact of ESF interventions.

Annex 1: Survey methodology

A1.1 Defining the sample population

A file containing the details of 26,393 learners who left ESF funded courses or learning during 2010 was provided to the research team by WEFO. This file contained the contact details of project participants, details of the course undertaken, the labour market position of project participants and information related to a variety of personal characteristics, including age, gender, educational attainment, disability, ethnicity, migrant status. The aim of the survey was to achieve interviews with 7,500 participants, whilst at the same time ensuring that the quality of the data was maintained through the achievement of a response rate of 50%. Therefore, not all learners contained within the administrative records were contacted for the purpose of the survey. The total number of records used after these look-ups were performed was 22,108

A1.2 Survey methodology

The ESF Leavers Survey was conducted via telephone interview. The design of the 2010 Survey was broadly the same as that used in 2009. The most significant difference to the 2010 survey was that the 2010 survey was conducted in a single Wave rather than the two wave design used in 2009. Analysis of the 2009 Survey revealed that was considerable continuity in the circumstances of individuals who responded to both Wave 1 and Wave 2 of the survey. Although an important finding in itself, a recommendation of the 2009 analytical report was that WEFO should consider whether there is value in having two waves of data collection within a relatively short time period. Having reflected upon the findings from the 2009 survey and recommendations made by the project team, WEFO has decided that the 2010 survey should consist of a single wave of data collection among a group of respondents who have been identified as having left an ESF funded course during 2010.

Otherwise, the survey instrument for 2010 remained largely unchanged from that used for the 2009 study, although additional questions were included to improve the quality of the data in certain areas. Most significantly, these included an additional question that asked respondents to provide an overarching description of their labour market experiences since completing full time education and improvements to the career history section of the questionnaire to ensure that respondents provided as full an account as possible of all of their activities since completing ESF. Minor modifications to response options across several areas of the survey were also made.

Telephone interviews were conducted over a period of approximately seven weeks. The fieldwork ran from the 8th June to the 27th of July 2011. All respondents were offered the opportunity to be interviewed in Welsh. All interviewers working on the study received a face-to-face briefing, and were provided with accompanying interviewer notes. A member of the WEFO team participated in the briefing on the first evening of interviewing. All fieldwork took place from IFF's telephone centre in London.

A1.3 Survey outcomes and response rates

At the end of the fieldwork, a total of 7,509 completed interviews had been achieved. The complete breakdown of sample outcomes is shown in Table A1.1. In total 1,160 people refused or were unwilling to participate. A further 1,066 did not recall their course. There is no single objective estimate of response rates, estimates of which will vary depending upon chosen population base. Expressed as a percentage of all records that the research team attempted to contact, the response rate for the survey is estimated to be 34%. Excluding those participants with no telephone numbers or where the number supplied was found to be incorrect or where it was not possible to contact the participant, the response rate increases to 47%. Excluding those who had no recall of participating in the project or who were still on the project, the estimated

response rate increases to 50%. There were 6,303 who were happy for their data to be linked to other data sets (84%).

Table A1.1: Developing a sample of leavers from ESF projects

Initial starting sample	**26,393**
Sample used	22,108
Fieldwork	
Unobtainable / wrong number	6,152
Called: not answered, no reply, person not in	7,221
Refusals	1,160
No recall of learning	1,066
Completed interviews	**7,509**
Response rates (population base in parentheses)	
All sample supplied (26,500)	28%
All sample used (22,108)	34%
Sample with a correct telephone number - i.e. excluding unobtainable numbers or wrong numbers (15,956)	47%
Sample with the correct telephone number and an eligible learner i.e. excluding 'unobtainable / wrong numbers', 'no recall of learning' (14,890)	50%

A1.4 Survey data and response bias

'Response bias' is the term used to describe the fact that people who display a certain characteristic (e.g. age, gender) may be more or less likely to respond to the survey. If this characteristic is also related to the factors we are studying in the survey, this creates potential bias in our interpretation of the survey results. For example, if women are more likely to respond than men, and if women have different reasons to men for participating in ESF training, then analysis of the reasons for participation will be biased by the fact that the gender structure of the survey results will be skewed towards women. An obvious solution in this instance is to present separate results for men and women. Table A1.2 shows response rates to the survey presented by selected characteristics for which information was available within the administrative records supplied to the research team. Response rates are presented as a percentage of the total

number of records supplied to the research team. This is because both (a) the ability of the interviewers to establish contact with a project participant and (b) the propensity of the contacted participant to agree to participate in the survey may be expected to vary between different groups.

The descriptive analysis of Table A1.2 reveals that response rates to the survey are lower among males, those in their mid to late twenties, lone parents, the disabled, those with lower levels of educational attainment and those who were identified as not completing their ESF intervention. An important difference between the 2010 Survey and the 2009 Survey is that whilst the first wave of the 2009 survey took place during February, the 2010 survey took place some five months later during June and July leading to concerns that the greater length of time that had elapsed since the intervention may have contributed to lower levels of response for the 2010 survey. However, it can be seen from Table A1.2 that response rates are not shown to decrease among those groups for whom a greater time had elapsed between completing their ESF project and participating in the study.

It is acknowledged that the reasons for non-response among different groups cannot be determined. For example, the lower rates of response among those who did not complete their ESF project may reflect a lower willingness to participate in voluntary activities generally. Alternatively, non-completion may be related to other factors that also reduce their likelihood of responding to the survey, such as moving home. Differences in response rates between different groups of participants may themselves also reflect other differences in the characteristics of different groups. For example, lower rates of response among lone parents may reflect lower levels of educational attainment among this group rather than lone parenthood per se.

Table A1.2: Response rates and survey population

	Response Rates					Population				
	Con P2	Con P3	Comp P1	Comp P2	Total	Con P2	Con P3	Comp P1	Comp P2	Total
Gender:										
Female	22.3	39.6	20.4	31.7	30.3	6052	5110	108	1262	12532
Male	20.6	40.4	18.8	32.9	26.8	8907	3656	186	1112	13861
Age:										
16-18 yrs	21.8	34.3	0.0	32.7	24.0	1622	280	5	110	2017
19-21 yrs	19.2	37.3	20.6	33.2	27.9	2168	1696	34	564	4462
22-24 yrs	14.6	35.2	32.0	28.9	25.6	1305	1359	25	339	3028
25-30 yrs	17.4	32.7	16.7	23.8	23.8	1995	1476	54	453	3978
31-40 yrs	20.8	40.0	16.2	33.3	28.0	2854	1602	74	399	4929
41-54 yrs	23.7	48.9	22.2	39.3	32.9	3559	1940	81	402	5982
55+ yrs	30.1	54.1	14.3	43.0	35.6	1454	412	21	107	1994
Family Status:										
Single/Couple	21.4	40.3	18.0	32.7	28.8	13704	8286	255	2266	24511
Lone Parents	19.7	34.2	28.2	22.2	23.7	1255	480	39	108	1882
Disability:										
Non-disabled	21.1	39.8	22.1	32.2	28.6	13519	8459	231	2292	24501
Disabled	23.0	44.6	9.5	34.1	26.5	1440	307	63	82	1892
Educational Attainment:										
None	17.4	44.5	8.3	75.0	19.4	3877	348	96	4	4325
NQF < 2	21.8	36.0	18.5	30.0	26.4	3406	1530	65	474	5475
NQF 2	22.8	36.1	23.0	34.2	29.5	3780	3151	74	1110	8115
NQF 3	25.0	44.9	25.0	34.6	34.9	1604	1632	28	422	3686
NQF 4-8	24.3	50.0	39.3	27.3	36.8	1061	1117	28	150	2356
Don't Know	20.1	37.1	66.7	25.2	27.5	1231	988	3	214	2436
Completion Status:										
Early Leaver	15.7	27.7	12.1	21.8	19.4	2955	1305	132	344	4736
Completer	22.6	42.1	25.3	34.0	30.4	12004	7461	162	2030	21657
Month of Completion:										
January	21.0	34.4	0.0	30.0	25.2	1167	582	55	200	2004
February	21.6	37.7	50.0	26.6	26.7	1433	650	2	169	2254
March	22.5	35.1	6.7	30.8	26.8	1680	818	15	211	2724
April	23.1	39.8	54.5	30.7	29.4	1276	729	11	192	2208
May	23.3	40.4	0.0	36.6	29.7	1408	726	2	194	2330
June	25.4	42.4	5.9	33.5	32.7	1454	1110	17	284	2865
July	24.5	40.4	7.7	31.3	31.6	1697	1390	13	262	3362
August	18.0	39.3	32.1	32.0	26.9	1097	700	28	172	1997
September	17.0	41.4	37.0	41.4	28.2	1160	775	27	198	2160
October	19.0	41.7	25.0	29.8	27.7	972	585	52	205	1814
November	18.1	44.7	18.8	30.4	27.5	999	532	48	230	1809
December	13.0	45.0	25.0	36.8	21.1	616	169	24	57	866
Total	21.3	39.9	19.4	32.3	28.4	14959	8766	294	2374	26393

To assess further the factors influencing survey response, we undertook a multivariate analysis of the response record for each potential respondent using logistic regression. This allowed us to measure the separate statistical significance of a variety of factors that could affect response. Results from the analysis are presented in Annex 3 (Table A3.7). The analysis revealed that the associations between response rates and the personal characteristics described above are strong, separate and statistically significant effects. It is estimated that the young, the less educated, lone parents and those who withdrew early from an ESF project are less likely to respond to the survey. Additionally, the analysis revealed that participants in projects from Priority 3 of the Convergence Programme and Priority 2 of the Competitiveness Programme were more likely to respond than participants from other Priorities. This is likely to reflect a number of factors, such as the current economic activity of the respondents (more likely to be employed both prior to ESF and at the time of the survey) and the nature of interventions that these groups undertake (i.e. longer duration and more likely to result in a qualification).

A1.5 Development of sample weights

As noted above, the presence of response bias in the sample of respondents to the ESF survey could bias our interpretation of responses from the survey. To consider the extent of these problems, sample weights were derived from the logistic regression model described above. In short, the regression model was used to estimate the predicted probability with which an individual in the survey population actually responded to the questionnaire. Sample weights were derived based upon the inverse of this predicted probability. For example, if an individual is estimated to have a 20% chance of responding to the survey, the response for that individual is weighted by a factor of five. The benefit of this approach is that the derivation of weights can simultaneously take in to account the separate and additional effect of a variety of characteristics upon the likelihood of response. Analysis of the data revealed that the utilisation of weights did not have a significant effect on the results of descriptive analysis

contained in the report. Comparisons of the characteristics of the sample of respondents to the ESF survey with and without the application of survey weights are presented in Table A1.3. The distribution of respondents between population sub-groups is relatively stable. Whilst the survey weights have been retained on the data set, they have not been used for the purpose of this report.

Table A1.3: Effects of Applying Population Weights

	Unweighted	Weighted
Gender:		
Male	49.3	47.7
Female	50.7	52.3
Age: (at time of survey)		
16 -18 yrs	6.5	6.5
19 - 21 yrs	16.6	17.2
22 - 24 yrs	10.3	11.4
16 - 24 yrs	*33.3*	*35.0*
25 - 30 yrs	12.6	15.4
31 - 40 yrs	18.4	18.4
41 - 54 yrs	26.2	22.6
55+ yrs	9.5	8.6
Ethnicity:		
White	97.7	97.8
Educational attainment prior to ESF		
None	10.2	11.8
NQF Level 1 or less	16.7	18.0
NQF Level 2	21	21.8
NQF Level 3	15.9	14.9
NQF Level 4 or above	14.6	11.9
Unspecified level	21.7	21.7
Work limiting illness (at time of survey)		
Yes	10.3	11.5
No	89.7	88.6
Place of birth:		
Wales	78	78.8
Elsewhere in the UK	17.5	16.6
Outside UK	4.5	4.6
English as first language	90.3	91.1
Speak Welsh	25.6	24.0
Sample size	7,507	26,393

Annex 2: Detailed regression results

Table A2.1: Modelling the probability of previously non-employed respondent being employed at the time of the survey

	Coef.	Std. Err.	Z	P>Z
Female	ref			
Male	2.04	0.20	7.41	0.00
16 - 18 yrs	ref			
19 - 21 yrs	1.02	0.21	0.10	0.92
22 - 24 yrs	0.76	0.18	-1.20	0.23
25 - 30 yrs	0.88	0.19	-0.61	0.54
31 - 40 yrs	1.00	0.21	0.01	0.99
41 - 54 yrs	1.38	0.28	1.57	0.12
55+ yrs	0.51	0.12	-2.90	0.00
No pre-ESF Qualifications	ref			
NQF level 1 or below	1.06	0.17	0.35	0.73
NQF level 2	1.73	0.28	3.35	0.00
NQF level 3	1.80	0.33	3.22	0.00
NQF Level 4+	2.50	0.48	4.76	0.00
Other, no grade	1.34	0.21	1.91	0.06
No work limiting illness	ref			
Work limiting illness	0.21	0.03	-11.42	0.00
White	ref			
Non White	0.44	0.19	-1.93	0.05
Live alone	0.63	0.12	-2.47	0.01
Joint household with children	1.46	0.27	2.07	0.04
Joint household no children	1.16	0.19	0.89	0.37
Single parent	ref			
Family home	0.74	0.14	-1.66	0.10
Shared accommodation	0.89	0.25	-0.43	0.67
Other situation	0.31	0.15	-2.37	0.02
Don’t know	(omitted)			
Refused	1.17	0.57	0.32	0.75
Lower qual from ESF	0.79	0.14	-1.30	0.19
No qual from ESF	ref			
Same qual from ESF	1.42	0.27	1.84	0.07
Higher qual from ESF	1.45	0.26	2.09	0.04
Qual transition not determined	1.19	0.13	1.56	0.12
Completed ESF	ref			
Withdrew from ESF	0.82	0.11	-1.46	0.14
Diagnostic Statistics				
Sample	2,556			
R-Squared	0.11			

Table A2.2: Modelling the determinants of current gross weekly earnings among those out of work prior to ESF

	Coef.	Std. Err.	Z	P>Z
female	ref			
male	0.41	0.05	9.14	0.00
16 - 18 yrs	ref			
19 - 21 yrs	0.26	0.10	2.76	0.01
22 - 24 yrs	0.44	0.11	3.91	0.00
25 - 30 yrs	0.46	0.10	4.59	0.00
31 - 40 yrs	0.49	0.10	4.86	0.00
41 - 54 yrs	0.56	0.10	5.85	0.00
55+ yrs	0.45	0.11	4.10	0.00
No pre-ESF Qualifications	ref			
NQF level 1 or below	0.14	0.07	1.91	0.06
NQF level 2	0.24	0.08	3.15	0.00
NQF level 3	0.24	0.08	2.79	0.01
NQF Level 4+	0.44	0.09	5.06	0.00
Other, no grade	0.09	0.07	1.22	0.22
No work limiting illness	ref			
Work limiting illness	-0.22	0.08	-2.79	0.01
White	ref			
Non White	0.16	0.22	0.74	0.46
Live alone	0.14	0.09	1.55	0.12
Joint household with children	0.20	0.08	2.48	0.01
Joint household no children	0.24	0.08	3.12	0.00
Single parent	ref			
Family home	0.08	0.09	0.88	0.38
Shared accommodation	0.09	0.13	0.71	0.48
Other situation	0.43	0.29	1.46	0.15
Don’t know	0.71	0.58	1.22	0.22
Refused	0.21	0.34	0.63	0.53
Lower qual from ESF	-0.09	0.08	-1.05	0.30
No qual from ESF	ref			
Same qual from ESF	-0.01	0.08	-0.13	0.89
Higher qual from ESF	0.08	0.08	0.94	0.35
Qual transition not determined	0.14	0.05	2.72	0.01
Completed ESF	ref			
Withdrew from ESF	-0.02	0.06	-0.38	0.71
Diagnostic Statistics				
Sample	873			
R-Squared	0.24			

Table A2.3: Modelling the determinants of current gross weekly earnings among those in work prior to ESF

	Coef.	Std. Err.	Z	P>Z
female	ref			
male	0.33	0.02	16.98	0.00
16 - 18 yrs	ref			
19 - 21 yrs	0.30	0.07	4.24	0.00
22 - 24 yrs	0.37	0.07	5.06	0.00
25 - 30 yrs	0.50	0.07	6.74	0.00
31 - 40 yrs	0.53	0.07	7.07	0.00
41 - 54 yrs	0.59	0.07	8.08	0.00
55+ yrs	0.51	0.08	6.45	0.00
No pre-ESF Qualifications	ref			
NQF level 1 or below	0.13	0.04	3.20	0.00
NQF level 2	0.22	0.04	5.42	0.00
NQF level 3	0.33	0.04	7.33	0.00
NQF Level 4+	0.49	0.05	10.61	0.00
Other, no grade	0.23	0.05	5.04	0.00
No work limiting illness	ref			
Work limiting illness	-0.04	0.05	-0.88	0.38
White	ref			
Non White	-0.10	0.05	-1.90	0.06
Live alone	0.24	0.05	4.79	0.00
Joint household with children	0.14	0.04	3.46	0.00
Joint household no children	0.09	0.04	2.38	0.02
Single parent	ref			
Family home	0.08	0.05	1.74	0.08
Shared accommodation	0.09	0.06	1.36	0.18
Other situation	0.13	0.10	1.31	0.19
Don’t know	-0.22	0.27	-0.81	0.42
Refused	-0.26	0.33	-0.80	0.42
Lower qual from ESF	0.00	0.04	0.08	0.93
No qual from ESF	ref			
Same qual from ESF	0.06	0.04	1.68	0.09
Higher qual from ESF	0.09	0.04	2.52	0.01
Qual transition not determined	0.05	0.03	1.57	0.12
Completed ESF	ref			
Withdrew from ESF	-0.03	0.03	-0.74	0.46
Diagnostic Statistics				
Sample	2597			
R-Squared	0.19			

Table A2.4: Modelling the probability that employed respondents report that ESF helped them to get their current job

	Coef.	Std. Err.	Z	P>Z
female	ref			
male	1.32	0.14	2.57	0.01
16 - 18 yrs	ref			
19 - 21 yrs	1.83	0.44	2.56	0.01
22 - 24 yrs	2.15	0.56	2.92	0.00
25 - 30 yrs	1.46	0.41	1.37	0.17
31 - 40 yrs	1.40	0.40	1.18	0.24
41 - 54 yrs	1.47	0.41	1.39	0.16
55+ yrs	1.21	0.41	0.56	0.58
No pre-ESF Qualifications	ref			
NQF level 1 or below	0.67	0.14	-1.94	0.05
NQF level 2	1.20	0.24	0.92	0.36
NQF level 3	0.98	0.23	-0.07	0.94
NQF Level 4+	1.03	0.24	0.12	0.91
Other, no grade	0.87	0.19	-0.65	0.52
No work limiting illness	ref			
Work limiting illness	0.72	0.17	-1.44	0.15
White	ref			
Non White	1.19	0.39	0.53	0.59
Live alone	0.80	0.21	-0.86	0.39
Joint household with children	0.67	0.16	-1.69	0.09
Joint household no children	0.70	0.16	-1.59	0.11
Single parent	ref			
Family home	0.64	0.16	-1.81	0.07
Shared accommodation	0.67	0.22	-1.25	0.21
Other situation	0.12	0.13	-2.02	0.04
Don’t know	1.04	1.31	0.03	0.98
Refused	0.15	0.16	-1.80	0.07
Lower qual from ESF	0.98	0.22	-0.08	0.93
No qual from ESF	ref			
Same qual from ESF	1.49	0.28	2.10	0.04
Higher qual from ESF	2.39	0.43	4.82	0.00
Qual transition not determined	1.53	0.24	2.76	0.01
Completed ESF	ref			
Withdrew from ESF	0.60	0.11	-2.80	0.01
Diagnostic Statistics				
Sample	2538			
R-Squared	0.04			

Table A2.5: Modelling the probability that non-employed respondents report that ESF will help them get a job in the future

	Coef.	Std. Err.	Z	P>Z
female	ref			
male	0.93	0.13	-0.53	0.59
16 - 18 yrs	ref			
19 - 21 yrs	0.73	0.17	-1.32	0.19
22 - 24 yrs	0.82	0.23	-0.71	0.48
25 - 30 yrs	0.64	0.17	-1.64	0.10
31 - 40 yrs	0.77	0.19	-1.06	0.29
41 - 54 yrs	0.71	0.18	-1.36	0.17
55+ yrs	0.47	0.15	-2.34	0.02
No pre-ESF Qualifications	ref			
NQF level 1 or below	0.98	0.22	-0.10	0.92
NQF level 2	1.46	0.35	1.55	0.12
NQF level 3	1.41	0.39	1.23	0.22
NQF Level 4+	1.28	0.41	0.76	0.45
Other, no grade	1.55	0.36	1.86	0.06
No work limiting illness	ref			
Work limiting illness	0.69	0.12	-2.21	0.03
White	ref			
Non White	1.59	0.73	1.02	0.31
Live alone	0.95	0.26	-0.20	0.85
Joint household with children	1.19	0.35	0.59	0.56
Joint household no children	0.97	0.23	-0.14	0.89
Single parent	ref			
Family home	1.16	0.29	0.61	0.55
Shared accommodation	0.94	0.40	-0.15	0.88
Other situation	1.64	0.82	1.00	0.32
Don’t know	(omitted)			
Refused	0.42	0.47	-0.78	0.44
Lower qual from ESF	1.43	0.40	1.29	0.20
No qual from ESF	ref			
Same qual from ESF	3.34	0.86	4.68	0.00
Higher qual from ESF	3.91	0.97	5.48	0.00
Qual transition not determined	2.02	0.36	3.93	0.00
Completed ESF	ref			
Withdrew from ESF	0.97	0.18	-0.17	0.86
Diagnostic Statistics				
Sample	1612			
R-Squared	0.05			

Table A2.6: Modelling the probability that respondents report that improvements in their jobs could be directly attributable to ESF

	Coef.	Std. Err.	Z	P>Z
female	ref			
male	1.36	0.18	2.35	0.02
16 - 18 yrs	ref			
19 - 21 yrs	1.05	0.53	0.10	0.92
22 - 24 yrs	0.94	0.49	-0.13	0.90
25 - 30 yrs	0.72	0.38	-0.62	0.53
31 - 40 yrs	0.72	0.38	-0.62	0.53
41 - 54 yrs	1.06	0.56	0.11	0.91
55+ yrs	0.90	0.51	-0.19	0.85
No pre-ESF Qualifications	ref			
NQF level 1 or below	0.82	0.22	-0.73	0.46
NQF level 2	0.80	0.21	-0.82	0.41
NQF level 3	0.82	0.24	-0.68	0.50
NQF Level 4+	1.20	0.37	0.60	0.55
Other, no grade	1.00	0.31	0.00	1.00
No work limiting illness	ref			
Work limiting illness	1.11	0.32	0.35	0.73
White	ref			
Non White	1.50	0.51	1.20	0.23
Live alone	1.30	0.58	0.58	0.56
Joint household with children	2.13	0.79	2.04	0.04
Joint household no children	2.06	0.74	2.01	0.04
Single parent	ref			
Family home	1.74	0.69	1.40	0.16
Shared accommodation	1.04	0.61	0.07	0.94
Other situation	3.34	2.01	2.01	0.05
Don’t know	(omitted)			
Refused	2.26	1.87	0.99	0.32
Lower qual from ESF	2.47	0.85	2.65	0.01
No qual from ESF	ref			
Same qual from ESF	3.47	1.17	3.67	0.00
Higher qual from ESF	4.14	1.39	4.24	0.00
Qual transition not determined	2.93	0.94	3.35	0.00
Completed ESF	ref			
Withdrew from ESF	0.98	0.27	-0.06	0.95
Diagnostic Statistics				
Sample	3245			
R-Squared	0.03			

Table A2.7: Modelling the probability that respondents would do the same course again:

	Coef.	Std. Err.	Z	P>Z
female	ref			
male	0.72	0.06	-3.70	0.00
16 - 18 yrs	ref			
19 - 21 yrs	0.98	0.15	-0.10	0.92
22 - 24 yrs	1.05	0.21	0.23	0.82
25 - 30 yrs	1.33	0.25	1.54	0.13
31 - 40 yrs	1.33	0.24	1.58	0.11
41 - 54 yrs	1.63	0.29	2.81	0.01
55+ yrs	2.41	0.51	4.16	0.00
No pre-ESF Qualifications	ref			
NQF level 1 or below	0.93	0.13	-0.47	0.64
NQF level 2	1.07	0.16	0.45	0.65
NQF level 3	1.23	0.21	1.22	0.22
NQF Level 4+	1.17	0.22	0.83	0.41
Other, no grade	1.08	0.15	0.54	0.59
No work limiting illness	ref			
Work limiting illness	0.84	0.10	-1.52	0.13
White	ref			
Non White	0.79	0.25	-0.72	0.47
Live alone	1.29	0.23	1.41	0.16
Joint household with children	1.30	0.24	1.43	0.15
Joint household no children	1.42	0.23	2.21	0.03
Single parent	ref			
Family home	1.17	0.20	0.92	0.36
Shared accommodation	1.19	0.32	0.66	0.51
Other situation	1.10	0.42	0.26	0.80
Don’t know	(omitted)			
Refused	0.74	0.34	-0.66	0.51
Lower qual from ESF	2.06	0.37	4.02	0.00
No qual from ESF	ref			
Same qual from ESF	1.75	0.30	3.30	0.00
Higher qual from ESF	1.78	0.29	3.55	0.00
Qual transition not determined	1.57	0.16	4.41	0.00
Completed ESF	ref			
Withdrew from ESF	0.64	0.07	-3.97	0.00
Diagnostic Statistics				
Sample	3237			
R-Squared	0.04			

Table A2.8: The probability of responding to the 2010 ESF leavers survey

		Odds Ratio	Std. Err.	z	P>z
Gender:					
Female	ref				
Male		0.99	0.03	-0.22	0.83
Age:					
16-18 yrs	ref				
19-21 yrs		0.88	0.06	-2.01	0.05
22-24 yrs		0.71	0.05	-4.77	0.00
25-30 yrs		0.70	0.05	-5.35	0.00
31-40 yrs		0.95	0.06	-0.81	0.42
41-54 yrs		1.23	0.08	3.33	0.00
55+ yrs		1.63	0.12	6.59	0.00
Single/couple	ref				
Lone parent		0.89	0.05	-1.92	0.06
Non-disabled	ref				
Disabled		1.10	0.06	1.73	0.08
Educational attainment:					
No Qualifications	ref				
NQF < 2		1.31	0.07	5.16	0.00
NQF 2		1.35	0.07	6.05	0.00
NQF 3		1.69	0.09	9.50	0.00
NQF 4-8		1.75	0.11	9.17	0.00
Don't Know		1.14	0.07	2.12	0.03
Completer	ref				
Withdrawer		0.60	0.02	-12.62	0.00
esf1	ref				
esf2		2.38	0.08	26.22	0.00
esf3		1.07	0.16	0.41	0.68
esf4		1.75	0.09	10.94	0.00
Course end date:					
January	ref				
February		1.10	0.08	1.32	0.19
March		1.09	0.08	1.19	0.23
April		1.21	0.09	2.69	0.01
May		1.23	0.09	2.96	0.00
June		1.32	0.09	4.15	0.00
July		1.20	0.08	2.76	0.01
August		1.03	0.08	0.46	0.65
September		1.11	0.08	1.39	0.16
October		1.09	0.08	1.12	0.26
November		1.05	0.08	0.69	0.49
December		0.86	0.09	-1.50	0.13

Annex 3: Technical Overview of Propensity Score Matching

Conditional Independence Assumption

The key assumption made in matching models is the Conditional Independence Assumption (CIA) also known variously as ignorability and unconfoundedness. The treated and untreated groups may differ because they have different characteristics. Some of these characteristics (e.g. gender or age) are observable and can be used as control variables to adjust for differences between the groups. Others are unobservable but any comparison has to assume that these unobservables do not have a systematic effect on the outcomes that varies across the two regimes. The CIA is a statement of conditions under which the effects of the unobservables can be ignored. As we argued above, the CIA or its equivalent underlies simple comparisons of mean values.

Each person in the ESF (treatment) sample and the LFS (control) sample has certain observable characteristics such as gender, age, qualifications, country of birth, disability, welsh speaking and family type. We shall refer to each of these variables individually as Z_k and collectively as the vector Z. If we denote each individual by subscript i, our data comprise observations on (Y_i, Z_i). In theory, each individual has two possible values for the outcome variable (work status after a year), firstly assuming that they were an ESF participant (Y_1) and, secondly, that they were not (Y_0). (One of these states will actually occur and the other – the counterfactual - will be hypothetical.) The CIA states that the values of work status in each regime (the values of Y_0 and Y_1) do not depend on whether the individual is an ESF participant once the values of the control variables are taken into account.[11] If we take two individuals A and B with identical values of the control variables (Z_A=Z_B), the differences in their values of work status (A's and B's values of Y_0 and A's and B's values of Y_1) are randomly determined and do not depend on whether they are treated or not. If A is an ESF

[11] More formally, $((Y_0, Y_1 \perp D)| \boldsymbol{Z})$ where $\boldsymbol{Z}$ is a vector of control variables. We are using $\boldsymbol{Z}$ rather loosely to represent a theoretically correct set of control variables as well as the actual ones used here.

participant and B is not, we can use B's actual value of Y_0 to predict what would happen to A if they were not to participate on the ESF project and A's actual value of Y_1 to predict what would happen to B if they were to participate on the ESF project. In practice, we would wish to reduce the effect of random noise and compare average values for comparable groups.

The CIA relates to the assumption of exogeneity made in regression models. The comparable regression model is:

$$Y_i = \alpha + \delta D_i + Z_i\beta + \varepsilon_i$$

The CIA guarantees the standard exogeneity assumption that D (being a member of the treated sample) and ε are uncorrelated. The regression format makes clear that treatment could affect the outcome directly or indirectly via changes in the values of the control variables. If we wish to identify the total effect of the treatment on Y, we require that the values of Z are not affected by D. In this interpretation used in matching, the control variables can affect the value of D but are not in turn affected by it.

We assume our control variables[12] are predetermined at the outset of the ESF project. Individuals do not choose to become single or a couple in order to participate. Matching is sometimes referred to as selection on observables. It makes an adjustment for the effect of the observable variables and the CIA rules out the possibility of any further selection bias because there is no remaining correlation between the unobservable variables (the error term in the regression above) and treatment status. This assumption requires justification in context of determining the control group. At the moment, local economic conditions are part of the unobservables. The use of Wales as a control group assumes that changes in the economic environment are the same across Wales over the course of one year. If South East Wales experiences a boom while the rest of Wales does not, then the control group will over-estimate the counterfactual

[12] Gender, age, qualifications, country of birth, disability, Welsh speaking and family type.

transition into work and the impact of ESF projects (based in the Heads of the Valleys and West Wales) will be under-estimated.

Common Support

The common support is the domain over which the control and treatment groups are directly comparable. In simple terms it is the set of individuals in the control and treatment groups who share similar values of the control variables and who under the right circumstances could reasonably be expected to be in either group. If there are some types of individual who are always ESF participants, then there are no comparable LFS individuals and we cannot make a direct comparison of their outcomes. One weakness of regression based investigation is that it may inadvertently make such comparisons by extrapolating the experience of the LFS sample into areas where it is not appropriate. Matching explicitly rules out this possibility by restricting comparisons to the common support. Matching proceeds by taking each treated individual and finding an individual in the control group with similar characteristics.

Propensity Score Matching

The propensity score is the probability of someone participating on an ESF project. It is defined as:

$$p(Z) = Pr(D=1| Z)$$

In practise, the propensity score is estimated using a probit or logit model.

The CIA implies that the values of work status in each regime (the values of Y_0 and Y_1) do not depend on whether the individual is an ESF participant once the values of the propensity score are taken into account.[13] In practise, this means that we can match on the propensity score. Conceptually, the simplest type of propensity score matching (PSM) is nearest neighbour matching. The nearest neighbour of a person in the treated sample is the person in the untreated

[13] More formally, $((Y_0, Y_1 \perp D)| p(\boldsymbol{Z})$ where $p(\boldsymbol{Z})$ is the true propensity score.

sample that is the smallest distance away in terms of the propensity score.[14] This criterion may result in poor matches especially if the number in the control sample is small so a calliper is often specified. The calliper specifies a maximum acceptable difference between the two propensity scores. A common practical problem is what to do when there are relatively few controls. Matching without replacement makes the closest match between the control and treated observation and removes the corresponding control from the list available for matching. Matching with replacement allows each control to be potentially matched to more than one treated observation. After each match is made, the control is returned to the pool available for matching. Radius matching is a further refinement. Here each treated observation is matched to all the observations within the distance specified by the calliper. This essentially compares the outcome for the treated observation with the average of the untreated observations lying within the specified radius. Given the large number of potential exact matches, this is the preferred option.

[14] The measure of distance is the absolute value of the difference in propensity scores. Other measures of distance are possible.

Annex 4: Results of Propensity Score Matching

Table A4.1: Sub-regional Analysis: All Non-Employed

	Calliper	None		0.001		0.0001	
All Non-Employed		Upper	Lower	Upper	Lower	Upper	Lower
All UAs	1:1	11.5**	9.3**	10.7**	9.2**	10.4**	8.9**
(All ESF UAs)	No replacement	1,168	886	896	717	759	608
	1:1	6.9**	9.0**	8.6**	8.8**	9.6**	9.3**
	With replacement	1,168	886	1080	830	928	706
	Radius			8.9**	6.2**	9.3**	6.7**
				1080	830	928	706
UAs in Bottom Quintile	1:1	9.7**	5.9**	11.2**	6.3**	9.5**	5.5*
	No replacement	902	695	624	508	515	416
(9 out of 15 Convergence UAs)	1:1	10.8	9.9**	12.3**	10.1**	10.8**	9.0**
	With replacement	902**	695	821	626	679	512
	Radius			10.0**	5.9**	8.1**	3.6
				821	626	679	512
UAs in Bottom Decile	1:1	11.3**	4.9*	5.7	3.9	6.4*	5.8
	No replacement	720	572	450	381	377	313
(6 out of 15 Convergence UAs)	1:1	9.6**	2.3	8.5**	4.6	7.2	5.0
	With replacement	720	572	632	495	516	402
	Radius			6.9**	3.6	4.9*	4.9*
				632	495	516	402

Statistically significant at the **5% or *10% level

Table A4.2: Sub-regional Analysis: Unemployed

	Calliper	None		0.001		0.0001	
All Unemployed		Upper	Lower	Upper	Lower	Upper	Lower
All UAs	1:1	12.6**	7.3**	13.2**	8.3**	13.4**	5.4*
(All ESF UAs)	No replacement	963	735	686	554	546	458
	1:1	11.5**	5.3**	12.9**	2.9	12.0**	2.2
	With replacement	963	735	876	680	710	556
	Radius			12.6**	5.8**	9.7**	6.0**
				876	680	710	556
UAs in Bottom Quintile	1:1	11.8**	6.0**	10.9**	8.5**	12.0**	3.2
	No replacement	721	561	430	368	332	280
(9 out of 15 Convergence UAs)	1:1	6.5	8.0	6.3	8.0**	7.7	7.0
	With replacement	721	561	647	483	492	374
	Radius			7.7**	4.5	8.6**	3.7
				647	483	492	374
UAs in Bottom Decile	1:1	11.8**	6.2**	11.8**	4.9	10.9	4.5
	No replacement	577	464	305	265	239	219
(6 out of 15 Convergence UAs)	1:1	1.0	-5.6	4.4	-4.2	0.0	-5.1
	With replacement	577	464	481	380	378	311
	Radius			8.5**	2.7	4.9	1.0
				481	380	377	311

Statistically significant at the **5% or *10% level

Table A4.2: Sub-regional Analysis: Economically Inactive

	Calliper	**None**		**0.001**		**0.0001**	
Economically Inactive		Upper	Lower	Upper	Lower	Upper	Lower
All UAs (All ESF UAs)	1:1 No replacement	5.9* 205	5.9 151	6.6* 197	6.9* 145	5.3 188	5.9 136
	1:1 With replacement	6.8* 205	3.3 151	7.7* 197	4.8 146	7.4* 189	4.4 136
	Radius			9.5** 197	7.4** 146	9.3** 189	6.1* 136
UAs in Bottom Quintile (9 out of 15 Convergence UAs)	1:1 No replacement	5.0 181	5.2 134	5.1 175	5.4 129	4.3 162	5.0 119
	1:1 With replacement	4.4 181	3.7 134	4.6 175	3.9 129	4.9 163	4.2 119
	Radius			5.4 175	5.2 129	4.1 163	2.1 119
UAs in Bottom Decile (6 out of 15 Convergence UAs)	1:1 No replacement	5.6 143	4.6 108	5.2 134	4.9 103	4.8 125	4.4 91
	1:1 With replacement	4.9 143	6.4 108	4.5 134	6.8 103	4.7 126	5.5 91
	Radius			4.7 134	3.8 103	4.0 126	1.8 91

Statistically significant at the **5% or *10% level