

Department for Work and Pensions

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The New Deal for Lone Parents, Lone Parent Work Focused Interviews and Working Families' Tax Credit: A review of impacts

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A report of research carried out by the National Centre for Social Research on behalf of the Department for Work and Pensions

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Glossary

Additionality rate

The impact expressed as the percentage of the gross rate.

Gross rate

The proportion of the population (here: lone parents) who either participate or are eligible to participate in a programme and subsequently exit benefit or enter employment (or display any other behaviour that a programme might wish to affect and that is measured in evaluations).

Impact

The net result or effect of a programme. The impact is typically estimated using a comparison (or control) group of individuals who share key characteristics of the programme group but are not eligible for the programme or for some other reason do not participate in it. The comparison group is used to observe outcomes that would have happened even in the absence of the programme.

The impact is calculated as the difference between the gross rate (e.g. of benefit exits) pertaining to the programme group and the equivalent rate measured for the comparison group.

The impact is sometimes also referred to as 'additionality'.

Summary

Introduction

This report compares the findings of a number of evaluations and impact assessments of the New Deal for Lone Parents (NDLP), the Lone Parent Work Focused Interviews (LPWFIs), including Review Meetings (RMs), and Working Families' Tax Credit (WFTC). All three public policies had been evaluated separately and at different points in time between late 2000 and 2004.

The effectiveness of NDLP was evaluated once in 2000 but this evaluation was also followed up with additional statistical analysis of the original data. This resulted in two sets of somewhat different estimates of the impact of NDLP. A close inspection of how these estimates were derived reveals that both sets are entirely compatible and complementary.

LPWFIs were introduced in 2001 when they covered lone parents with children aged 13 or older if they were existing claimants of Income Support (IS) and lone parents with children over the age of five if they were new or repeat claimants of IS. In the three subsequent years, LPWFIs were steadily extended to cover lone parents with increasingly younger children. The first two extensions were evaluated, as well as the original introduction of LPWFIs. In addition, one evaluation explored the impact of LPWFI RMs. These were introduced in 2002 and 2003 and call in existing IS claimants one year after their initial LPWFI and new and repeat claimants six months and again, one year after their initial LPWFI.

WFTC was introduced in 2001 and the effect on lone parents' employment was assessed in a small number of research papers, including two studies commissioned by HM Treasury.

The objective of the evaluations was to measure the impact of the programmes. The impact is also sometimes referred to as the additionality, that is, the additional amount of change that can be attributed to the programme above any change that would have occurred anyway. NDLP and LPWFI sought to measure changes in benefit exits. In addition, the NDLP evaluations studied the impacts on lone parents taking up employment. The WFTC evaluations only estimated the effect of tax credits on lone parents in employment.

Key findings

- The evaluations included in this review differed in various respects. Specifically, NDLP, LPWFI, RM and WFTC evaluations used different data (administrative and/or survey data), analysed programmes or extensions to programmes over different time periods and compared either eligible or participating populations to different types of comparison groups. The impacts that they measured and how these were defined also varied between studies. Such differences can limit the extent to which direct comparisons of findings should be made. But **once variations between studies are taken into account, the impact estimates can be shown to be consistent and compatible.**
- It is, however, important to note that not all evaluations were able to observe and measure programme impacts for the entire population that was targeted by the policy. LPWFI and RM evaluations could only be reliably conducted for sub-groups of the eligible lone parent populations (typically the summer/autumn cohorts) and could only extend to comparatively short observation periods. In such cases, some caution must be taken when drawing more general conclusions as to the programmes' impact.
- The NDLP, LPWFI and RM evaluations estimated impacts on lone parents' receipt of IS; the NDLP evaluations also estimated impacts on employment. For their specific populations and at the given times, all three policies were effective. The impacts of NDLP and LPWFIs (on reducing IS receipt) declined with time; RM appeared to have a positive additional effect that more than compensated for the decline in the initial WFI impact.
- NDLP and LPWFIs were most effective when lone parents were able to participate soon after they had become eligible.
- NDLP was evaluated twice – using the same survey and administrative data but changing some of the methodological details of the evaluation. The key difference between the evaluations was that the later of the two (by Dolton *et al.*) applied a stricter definition of benefit exit after programme participation than the initial study (by Lessof *et al.*) had. It discounted repeat participation and observed exits not just from IS, but also Jobseeker's Allowance (JSA) and Incapacity Benefit (IB). This resulted in somewhat smaller impact estimates. Both studies calculated that participation in NDLP increased the proportion of lone parents exiting IS or all three benefits by between 20 and 25 percentage points. Over time, the additional exit rate declined slowly.
- NDLP impacts were greater for stock claimants than for flow claimants. Generally, more disadvantaged lone parents, such as those claiming benefits for longer, appeared to benefit more from NDLP than other lone parent groups.
- The evaluations of NDLP estimated impacts on programme participants rather than the entire eligible lone parent population. Because participants typically account for only a small fraction of eligible lone parents and very likely also differ in their characteristics (i.e. work-readiness) and motivation (i.e. attitudes towards work), the actual contribution of NDLP to all lone parent exits from benefits is smaller than the above impact figures.

- LPWFIs were also particularly effective for stock claimants but also for flow claimants with very young children. The estimates of impacts on IS receipt, typically less than two percentage points, were much smaller than those for NDLP. It is, however, important to allow for the fact that LPWFI evaluations studied the larger group of lone parents who were eligible for LPWFI rather than the much smaller group of actual participants (as studied in the NDLP evaluation). As already noted, participants are likely to differ in key aspects from eligible populations, in particular regarding their readiness to start paid work. Once this is taken into account, the NDLP and LPWFI impact rates are more similar. Mandatory RM also had a positive additional impact on IS exits on top of the initial LPWFI impact.
- Of the three lone parent programmes, NDLP, LPWFIs and RM, NDLP appeared to have had the greatest effect.
- The strongest effect, however, appears to have been that of WFTC. Several studies suggest that it helped to increase the proportion of **all** lone parents in paid work by between three and five percentage points. Depending on the time period that is referred to, this represented between a third and a half of the overall increase. Estimates of WFTC impact on lone parents working 16 or more hours suggested even greater impacts, in the region of seven percentage points.
- The WFTC impacts appear much lower than the NDLP impacts reported earlier. But the former are based on **all** lone parents whereas the latter are based on the much smaller group of lone parents who **participated** in NDLP. Once this is taken into account and like is compared with like, the WFTC impacts are the greater of the two.

How the evaluations were conducted

The evaluations used a range of different evaluation or estimation methods, which typically explained why some of their detailed findings differed.

NDLP

The NDLP evaluations used a method called Propensity Score Matching (PSM). To conduct PSM, participants in NDLP are matched to a group of non-participants as closely as possible on a range of personal characteristics that are believed to affect the likelihood (or propensity) of a lone parent participating in the programme. In the case of NDLP evaluations, these personal characteristics were collected in a survey of participants and non-participants. Matching the two groups on these indicators makes sure that they are very comparable. However, because it is not always possible to match every participant to a non-participant and vice versa, the comparisons often do not involve the entire group of programme participants. This was indeed the case for the NDLP evaluation. However, it was not found to have unduly affected the estimates of the impacts of NDLP.

LPWFI/RMs

The evaluations of LPWFIs and the RMs chose a different approach, using Difference-in-Differences (D-i-D) to estimate the impact of the lone parent interviews. D-i-D measures changes in the observed outcomes at different points in time for both LPWFI participants and non-participants: once (or more often) before participants attended their LPWFIs and then again after they had attended the interviews. Changes are measured for non-participants at the same time as for participants and, in these instances, the changes of interest were exits from benefits. The difference between the changes observed for participants and for non-participants is the impact of a programme. This method is only valid if it can be shown that prior to participation in LPWFIs, later participants and non-participants behave very similarly, that is, similar, if not the same, proportions of lone parents received IS in the months, sometimes years, leading up to the LPWFI.

D-i-D is often chosen when no immediately comparable or identical participant and non-participant groups can be identified. This is typically the case for mandatory programmes, such as LPWFIs. Because everyone is required to participate in an LPWFI, an equivalent comparison group of non-participants does not exist. Instead, a comparison group is 'created' from a population of lone parents who, because of the ages of their youngest children, were not (yet) mandated to take part in LPWFIs. Statistical methods are then used to further standardise the participant and non-participant groups.

The more lone parent populations are required to take part in LPWFIs, the more difficult it becomes to identify a suitable comparison group. This problem is exacerbated if policies are rapidly extended to new target groups as this reduces the number of lone parents that might serve as comparisons, even if they might have previously been suitable comparators. This was one of the problems that the LPWFI evaluations faced and which complicated, in particular, the LPWFI extension evaluations.

WFTC

The evaluations of the WFTC used D-i-D, D-i-D combined with PSM, and structural equation modelling to estimate the impact of the tax credits on the number or proportion of lone parents in paid work. Unlike the NDLP and LPWFI evaluations, which used administrative data in their analyses, the WFTC evaluations only used nationally representative survey data, such as the British Household Panel Survey (BHPS) and the Labour Force Survey (LFS). Structural models used the LFS to follow the same population over time, thus establishing changes in behaviour, without requiring comparison groups. However, these populations are not the same people because the data are not panel data. Structural models measured change over a number of years.

The studies used different data, analysed different time periods and used different types of comparison groups. So it was very likely that these studies would also produce different results. In most instances, however, this review found that the

estimates were, in fact, fairly similar. Because these were estimates that were based on samples, they all contained a degree of imprecision – only a full census can be totally precise. Once this is taken into account, despite their differences, the various estimates were, in most instances, overlapping and, hence, compatible.

Methodological issues cutting across the evaluations

To a large part, this review involved comparing different evaluation or assessment methods and considering how they might have affected the impact estimations. This was particularly the case for the NDLP and WFTC evaluations, which produced more than one impact estimate based on similar or identical data, clients or time periods. In contrast, each of the various types of phases of LPWFIs and the RMs was only evaluated once, so that there were no 'competing' estimates pertaining to the same data, clients or time periods.

The LPWFI and the RM evaluations faced different problems. The most important ones were the annual extension of LPWFIs and delays in the delivery of earlier phases. Because of this, none of the LPWFI and RM evaluations was able to monitor impacts over a full year of intake of lone parent IS claimants. The evaluations could, therefore, not take account of the likely effects of seasonal variations in benefit receipt and employment among lone parents on programme impacts. Instead, the LPWFI and RM evaluations only estimated programme impacts for new and existing claimants, whose IS claims had started between July/August and November of the year that the programme, or its extension, was introduced.

Some caution must, therefore, be practised when drawing wider, generalised conclusions from the available evidence or applying it to other lone parent groups or time periods. For these studies, a particular issue is that the composition of currently NDLP- or LPWFI-eligible lone parents may have changed since these evaluations were conducted. The same applies to economic and social conditions. These changes may well affect the way in which these programmes, including the successor to WFTC, deliver their expected outcomes today. None of these caveats is unique to the NDLP, LPWFIs or WFTC evaluations. None invalidates the evaluation findings; each merely limits the situations to which the findings might apply.

Findings

The evaluations found that the three policies were effective at different times for different populations. For LPWFIs and NDLP, the evidence suggests that impacts decline with time but that RMs can revive some of the earlier impacts of LPWFIs at a later stage. Evaluations of WFTC also covered different time periods but did not estimate how long the policy might have an effect on the population they benefit.

For the two principle out-of-work programmes, NDLP and LPWFIs, the evidence suggests that they had the greatest effect the sooner eligible lone parents were

able to participate in the programmes. The third intervention, the RMs, appeared to work as a reminder to participants of the services that were available to help them into work. But their effect, again, appeared of short duration, emphasising, again, the importance of early and possibly, intensive intervention.

The decline in the effect of programmes is not surprising, because, with time, even in the absence of the interventions, lone parents who are on benefit re-enter the labour market. The main benefit of the out-of-work programmes appears to have been to accelerate this process for some, though not all, lone parents.

NDLP

The impact of NDLP on participants who were claiming IS in late 2000 was estimated twice for slightly different groups of lone parents. Both studies, however, found very similar results. The initial evaluation (by Lessof *et al.*, 2003) followed up a sample of lone parents drawn from all IS claimants at the time who agreed to participate in the study before they took part in NDLP. The subsequent re-analysis of the data (Dolton *et al.*, 2006) followed up those lone parents who had claimed IS at the time and agreed to participate in the **study even if they had already joined NDLP**. This led to slightly different results for two reasons: First, including lone parents who already participated in NDLP probably increased the proportion of participants who were better motivated, more interested in obtaining employment and generally more 'work-ready'. The percentage of lone parents who subsequently leave benefits would, for this reason, be expected to be higher. However, because the evaluations were based on comparisons with non-participants of NDLP whose characteristics were also more 'work-ready', more of them would also be expected to leave IS unassisted by NDLP. This was, indeed, reflected in the higher benefit exit rates recorded for the control group in the Dolton *et al.* study.

Furthermore, the study by Dolton and his colleagues also recorded whether lone parents were not only no longer claiming IS, but had also stopped claiming – or never started to claim – any of the other work-related social security benefits, i.e. JSA or IB. Dolton *et al.* also only recorded those who remained off benefit for three months or more (up to 48 months), whereas Lessof *et al.* (2003) only recorded first exits from benefits but disregarded subsequent returns to benefit.

In other words, Dolton *et al.* applied a much stricter benefit exit condition, which, in turn, reduced the proportion of exits. The impacts of NDLP were, thus, smaller than those recorded previously by Lessof *et al.* (2003) **but the more stringent application of conditions makes Dolton *et al.*'s the preferred estimate.**

The studies by Dolton *et al.* and by Lessof *et al.* found that the proportion of lone parents who exited either IS or all three work-related social security benefits was about 20 to 25 percentage points higher for those who participated in NDLP than for non-participants measured over three to nine months. Dolton *et al.* (2006) also estimated that, over three and four years, this additional rate of benefit exits declined only marginally to 17 and 19 percentage points respectively. But because

some lone parents leave IS or the other benefits even without the help of NDLP – and do so increasingly as time goes on – the contribution of NDLP to the all IS or benefit exits declines steadily. This said, even after four years, the impact of NDLP accounted for a quarter of all benefit exits.

It is important to stress again, at this point, that this conclusion applies to lone parents who were similar in their main characteristics to those lone parents who participated in NDLP. Because this group of lone parents was likely to be different from the total population of all lone parents who could have taken part in the programme, the conclusion does not mean that a quarter of **all** benefit exits would be due to NDLP. This is further illustrated by the fact that **only about seven per cent of eligible lone parents actually join NDLP.**

When assessing the impact of NDLP, it can be helpful to distinguish between the programme's effect on lone parents who made a new or repeat claim (the so-called 'flow' of claimants) shortly before joining NDLP and lone parents who had already been claiming IS, JSA or IB for some time before they participated in the programme (the 'stock' of claimants). Only one of the NDLP studies made this distinction (Dolton *et al.*, 2006); it found that NDLP was more effective for stock claimants than for flow claimants. About 30 months after participation, the proportion of NDLP participants who were no longer claiming benefits was 14 percentage points higher among flow claimants, but 20 percentage points higher among stock claimants, than they were among the respective, matched non-participants.

Together with further analysis of the characteristics of lone parents who benefited from NDLP, this revealed that the programme worked best for those lone parents who were most disadvantaged, in particular those lone parents who had been claiming benefits for longer (and typically, not been in work for some time). NDLP also appeared to be more effective for lone parents with very young children, however, the evidence was not very clear, except with respect to employment very soon after participation in NDLP.

Both Lessof *et al.* and Dolton *et al.* measured the impact of NDLP on employment; the latter again applying a stricter criterion of **sustained** employment (as opposed to mere employment **entry**) so as to reduce the risk of counting more than once lone parents who cycle between work and benefits. NDLP was less successful in moving lone parents into employment, in particular sustained employment, than it was in moving lone parents off benefits. The employment impact of NDLP was greatest in the early months after participation. Once again, the longer the period that had passed since participation, the lower the percentage of lone parents who entered sustained work and the lesser the contribution of NDLP to this positive change.

LPWFIs

Like NDLP, LPWFIs worked better for stock claimants on IS, than for lone parents who were making new or repeat claims. Both the introduction of LPWFIs in 2001

and their extension in 2002 yielded significant positive results for stock claimants (whose youngest child was 13 years or older at the time of the LPWFI introduction in 2001; or eight to 12 years old in the case of the LPWFI 2002 extension). The impact of the LPWFI extension in 2003 to stock claimants with children aged five to eight years was not evaluated.

LPWFIs did not substantially change the rate at which new or repeat claimants of IS stopped claiming the benefit until the extension of the programme, in 2003, to lone parents whose youngest child was aged between one and three years.

The estimates of IS exits as a result of LPWFIs were smaller than those of exits due to NDLP; typically in the region of less than half a percentage point to close to two percentage points. As a proportion of all exits, the contribution of LPWFI was also smaller than was estimated for NDLP. However, it must be borne in mind that, as a voluntary programme, NDLP was likely to attract different types of participants than the mandatory LPWFIs. Moreover, whereas the LPWFI evaluations were of lone parents who were **eligible** for the programme, the NDLP evaluations were studying the proportionately much smaller group of **actual participants**. If allowance is made for the latter, the NDLP and LPWFI impact rates are more similar.

Estimates of the impact of LPWFIs on lone parents taking up work do not exist.

LPWFI RMs

Mandatory RMs had a positive additional effect on top of the initial LPWFIs where they were conducted annually and targeted new and repeat claimants of IS whose children were aged between five and eight years. There was also some evidence that annual LPWFI reviews with stock claimants (whose children were aged 12 to 16 years) had a positive additional effect. However, six-monthly meetings (targeted at flow claimants with youngest child aged three to five years) did not appear to affect the rate at which lone parents were exiting IS.

The interaction between NDLP and LPWFIs

The main LPWFI evaluations did not attempt to separate the impact of LPWFIs from that of NDLP, although lone parents could have taken part in both. One study that did identify the incremental impact of the two programmes **upon each other** found that NDLP typically had the greater effect (Knight *et al.* 2006). Although this evaluation was fraught with technical difficulties, it also found evidence of a strong impact of LPWFI on top of NDLP among flow claimants soon after the start of their claim. Other evidence, in particular for stock claimants, was less reliable, although largely positive. However, the incremental effect of LPWFI on top of NDLP for stock claimants was found to be negative.

About three-quarters of eligible lone parents take part in LPWFIs, but only seven to nine per cent of lone parents ever take part in NDLP. LPWFIs have an important role to play in providing lone parents with a gateway to NDLP. The studies

reviewed here suggested that around one-third of participants in the 2001 LPWFIs subsequently referred to NDLP. Unfortunately, there are problems with defining what participation in NDLP means. Assuming that participation in NDLP involves more than one – namely, the initial – meeting with the Personal Adviser (PA), work by Coleman and Rousseau (2003) suggests that the take-up rate of NDLP proper may be rather lower. The authors found that only half of the lone parents who had taken part in one voluntary meeting with their NDLP PA then had further meetings with them. That means, about half of the one-third referred from LPWFIs might participate in NDLP proper. A more realistic estimate may, therefore, be that one-in-six LPWFI participants referred to NDLP. Since we cannot be sure about the content of the subsequent voluntary meetings and whether lone parents really participated in one of the NDLP options, this would be an upper estimate of the rate of referrals from LPWFIs to NDLP.

WFTC

Several evaluations found that WFTC had a strong positive effect on the proportion and number of lone parents who took up paid work. The estimates suggested that, as a result of WFTC, lone parents' employment rates had increased by between three and a half percentage points and almost five percentage points over their initial levels. These estimates were calculated over two and three years and represented a rise over the entire periods.

Set against the total growth in lone parent employment, these increases accounted for around one-third to one-half of the total rise. Part of the net increase would have been due to NDLP and – given the previous discussion – to a lesser extent, LPWFI. The WFTC evaluation did not specifically account for the likely influence of, in particular, NDLP, but one study (Greg and Harkness, 2003) suggested that one-fifth of any combined LPWFI and NDLP effect might have been due to the latter's positive influence on lone parents' employment opportunities, job search and training.

Only two of the five studies reviewed for WFTC evidence looked specifically at the contribution of tax credits on increasing the proportion of lone parents who worked 16 or more hours per week – the point at which one becomes eligible for WFTC. Here the estimates were even higher, suggesting that WFTC increased the employment rates among lone parents working 16 or more hours per week by around seven percentage points.

WFTC appeared to have benefited, in particular, lone parents with youngest children below the age of 11 and, possibly, even younger children (zero to four years).

Conclusion

While the review could not precisely reconcile all estimates of the different programmes' impacts, it is clear that the three programmes had positive effects and that the various impact estimates are broadly consistent.

NDLP substantially increased IS exits and employment entries among participants beyond what would have been expected on the basis of comparisons with lone parents with similar characteristics who did not take part in NDLP. NDLP worked particularly well for lone parents who were more disadvantaged and had fewer links to the labour market. Impacts, thus, appeared larger for stock claimants. This was also true for LPWFI, which appeared to be effective for stock claimants with youngest children aged five years but only for flow claimants with children aged one to three years. RMs worked well after one year, rather than six months. The greatest impact, however, was recorded for WFTC.

Preferred impact estimates

Table 1 summarises the preferred benefit exit impact and additionality estimates obtained for NDLP and LPWFI. Only those impacts that were (or were judged to be) statistically significant are reported. Estimates based on longer observation periods are preferred to those with shorter observation periods. In the case of NDLP, the preferred estimate takes account of lone parents cycling in and out of benefit during the observation period. Additionality rates are the contribution of the programmes to gross (or: overall) exit rates, which include the proportion of exits that would have occurred even in the absence of the programme.

The NDLP exit, impact and additionality rates were originally estimated for lone parents who had participated in the programme; these figures are grossed up to the entire eligible population of lone parents. All LPWFI exit, impact and additionality rates refer to the programme-eligible populations. The populations covered by the evaluations are shown in the last column of Table 1; the cohorts of new and repeat (flow) claimants covered are shown in the first column. All statistics shown in Table 1 only refer to these populations.

Table 1 NDLP and LPWFI impacts on benefit exit – lone parents on IS

	Months after participation or start of eligibility	Gross exit rate	Impact on exit rate	Additionality rate	Eligible population
NDLP (flow + stock) (August and October 2000)					All lone parents on IS
Net of repeat participation (base: all participants)	9	46.09	22.24	48.25	
	24	54.16	18.3	33.79	

Continued

Table 1 Continued

	Months after participation or start of eligibility	Gross exit rate	Impact on exit rate	Additionality rate	Eligible population
Grossed up to eligible population	9 24		1.7 1.4		
LPWFI					
Introduction 2001					Lone parents on IS; youngest child aged...
Stock (claiming before or on 30 April 2001 and continuing thereafter)	9 12	18.77 25.60	1.13** 0.79**	6.0 3.1	... 13 yrs - 15 yrs 9 months
Extension 2002					Lone parents on IS; youngest child aged...
Stock (claiming before or on 30 April 2001 and continuing thereafter until 1 April 2002)	9 12	14.4 17.5	1.66** 1.98**	11.5 11.3	... 9 - 12 years
Extension 2003					Lone parents on IS; youngest child aged...
Flow (June – Oct 2003 cohort)	6	24.0	1.8**	7.5	... 1 - 2 years
LPWFI RMs, incremental impact					
Flow – Annual (June – Oct 2002 cohort)	15-18 (after initial LPWFI)		0.3		... 5 years 3 months - 15 years 9 months
Stock – Annual	15-19 (after initial LPWFI)		0.5		... 12 years - 15 years 9 months

The NDLP exit, impact and additionality rates were originally estimated for lone parents who had participated in the programme; these figures are grossed up to the entire eligible population of lone parents. All LPWFI exit, impact and additionality rates refer to the programme-eligible populations. The populations covered by the evaluations are shown in the last column of table 0.1; the cohorts of new and repeat (flow) claimants covered are shown in the first column. All statistics shown in table 0.1 only refer to these populations.

1 Introduction

The Department for Work and Pensions (DWP) commissioned the National Centre for Social Research (NatCen) to review the findings from a number of discrete research projects that estimated the impacts of the New Deal for Lone Parents (NDLP), Lone Parent Work Focused Interviews (LPWFI) and Tax Credits. The principal objective of the exercise was to bring together the evidence in one document, to compare the range of impact estimates available and to report on the effectiveness of the NDLP/LPWFI regime and of Tax Credits, in particular, where available, for different groups of lone parents.

The impacts of the three policies have typically been evaluated using different methods and impact indicators. A key aspect of reconciling the evidence was to establish the extent to which these different estimates were compatible.

More specifically, the reconciliation project was also concerned with extracting from the existing studies information about the interaction or linkages between the policies, in particular, the:

- impact of LPWFIs on referrals to NDLP;
- take-up rate of NDLP among those referred to the programme via LPWFIs;
- self-referral rate to NDLP independent of LPWFIs (and the related self-referred take-up rates of NDLP); and
- contribution of LPWFIs to change in the proportion of all lone parents who participate in NDLP (referred or self-referred).

In addition, the Reconciliation Project sought to review the reported impact or contribution of NDLP and LPWFIs

- on the levels of employment and benefit claims among lone parents;
- towards lowering the number of workless households;
- towards increasing the numbers of lone parents in full-time or part-time sustainable work.

Where available, similar estimates were sought for the impact of tax credits.

As will become apparent, impacts of the kind described above were not always reported or were not reported consistently for all three interventions. In some instances, it was possible to estimate contributory impacts to aggregate employment or benefit levels from the data contained in the evaluations. Wherever this was feasible, the relevant estimates will be reported here.

The remainder of this chapter provides a brief outline of the three policies reviewed here and introduces the evaluation reports that this study draws upon.

1.1 Background to NDLP, LPWFI and tax credits

1.1.1 NDLP

The NDLP is a voluntary programme of support designed to assist lone parents who are in receipt of Income Support (IS) to find employment and to accommodate parenting responsibilities with paid work. The programme was first piloted in eight areas across Britain in July 1997 before being finally rolled out nationally to new and repeat claimants of IS whose youngest child was aged over five years and three months in April 1998. The programme was subsequently extended to include existing IS claimants among lone parents with a youngest child above this age from October 1998 onwards. Throughout, lone parents with children below the age of five years and three months were eligible to participate in NDLP, but unlike the main target group, were not specifically invited, by letter, to do so.

In May 2000, targeting of NDLP was further extended to include all lone parents whose youngest child was aged three years and over. In November 2001, finally, all non-working lone parents and lone parents working fewer than 16 hours became eligible for NDLP, regardless of their claimant status, and were invited to take part in the programme.

Participants in NDLP initially meet with a Personal Adviser (PA) whose role it is to advise lone parents about the opportunities for receiving financial and practical support to enable them to seek and take up paid work. Lone parents are under no obligation to take up any of the support measures, but PAs will typically maintain regular contact with NDLP participants in order to continue to offer assistance and advice. Lone parents who wish to take up any of the support options, which, for instance, include work-related training customised to meet the needs of lone parents, are usually referred to specialist providers of this support.¹

¹ The sequence of interviews that lone parents may experience while participating in LPWFI and NDLP can be confusing. Evans *et al.* (2003, p.6) usefully distinguished between PA meetings (mandatory meetings with the PA), NDLP Initial Interview (voluntary meetings between PA and a prospective NDLP participant) and NDLP PA Interview (voluntary meeting between PA and a participant on NDLP).

1.1.2 LPWFI

In April 2001, after being piloted the previous year in three pathfinder areas, compulsory LPWFIs were introduced nationally for new and repeat IS claimants whose youngest child was at least five years and three months old at the time of the initial claim. Lone parents already claiming IS on 30 April 2001 with a youngest child aged between 13 years and 15 years and nine months also became mandated to taking part in LPWFIs.

Since then, the LPWFI-eligible population of lone parents has been gradually extended to include:

- from April 2002 – new and repeat IS claimants whose youngest child was three years or older and existing claimants whose youngest child was aged nine years or older;
- from April 2003 – all new and repeat IS claimants and existing claimants whose youngest child was aged five years or older; and
- from April 2004 – all existing claimants, so that, by that year, all lone parents claiming IS and whose youngest child was no older than 15 years and nine months were required to attend Work Focused Interviews (WFIs).

Alongside the gradual extension of the eligibility of LPWFIs, compulsory Review Meetings (RMs) were introduced in 2002. From May of that year, annual reviews became compulsory for new and repeat IS claimants who had entered the LPWFI system between April 2001 and April 2002, and for existing claimants who became eligible for LPWFIs on 30 April 2001. In October 2002, the provisions were further extended to require new and repeat claimants who had entered the LPWFI system after April 2002 to attend an RM after six months, which was followed by annual reviews thereafter.

The impacts of the initial NDLP phase, the initial LPWFI and each of its extensions, and the review meetings have been evaluated and are at the centre of the Reconciliation Project.

NDLP has not been a static programme, but evolved over time, with new elements added to existing provisions, either on a piloting basis or as permanent additions to the programme. The key elements of these additions, typically referred to as 'enhancements', are illustrated in Table 1.1.

1.1.3 Working Families' Tax Credit

Tax credits replaced Family Credit (FC) as the main in-work social security benefit available to lone parents (and other low-income working families with children) in October 1999. Known as Working Families' Tax Credit (WFTC), this new in-work benefit was more generous than its predecessor as a result of both, higher credits and lower withdrawal rate (or taper) of earnings from paid work if they exceeded a given threshold – itself higher than under FC: raised from £80.65 per week to £90 per week. The income threshold was gradually increased each financial year,

rising to £94.50 per week in 2002/03. The taper was reduced from 70 per cent under FC to 55 per cent under WFTC; it remained at this level throughout.

WFTC also included more generous support to cover the cost of childcare than had previously been available under FC. The new childcare credit covered 70 per cent of actual childcare costs, up to a maximum of £100 per week for those with one child and up to £150 per week for those with two or more children.

WFTC was available to families with at least one adult in paid employment for at least 16 hours per week and with at least one child under the age of 16 (or 19, if in full-time education). Unlike FC, which was paid by direct debit or order book, WFTC was paid through the wage packet either by the employer or directly by the (then) Inland Revenue.

In April 2003, WFTC was, in turn, replaced by Working Tax Credit (WTC), which extended eligibility to people on low income without children. Also introduced at the same time was the Child Tax Credit (CTC), a means-tested benefit available to all families with children under 16 years of age (or 19, if in full-time education). The childcare element of the WTC replaced the Childcare Tax Credit under its predecessor, WFTC.

Table 1.1 Enhancements to NDLP

National Roll-out of NDLP (2000)	April 2001	April 2002	April 2003	April 2004	April 2005
NDLP In-Work Training Grant Pilots – not rolled out	Innovation Fund (12 projects, March 2001-March 2002)	National Outreach service for partners and lone parents	Childcare Partnership Managers (in Jobcentre Plus districts)	New mentoring service (no details)	Formal childcare places funded for lone parents who found job through NDLP for up to one week before they start work (Childcare Assist)
Enhanced access to Work trials	Self-employment option added	Lone Parent Mentoring (August 2001)		'Discovery Weeks' introduced	In-Work Credit (IWC) extended across London (not North East London) (and to the South East in October 2005)
Jobseekers' Grant available to lone parents on IS for five or more years	Extension of work-based learning for adults to 18-24 year old lone parents			'Childcare Tasters' introduced	New Deal Plus for Lone Parents in five English districts (extended to one district in Scotland and one in Wales – October 2006)
BA visiting officer pathfinders and ES marketing pilots	Adviser Discretion Fund for lone parents on IS six months of more (July 2001): was £300; now £100 over 12 months			IWC in three pilot areas. Extended to a further nine areas in October 2004	
	Basic Skills screening introduced			Work Search Premium pilot (October 2004) – ended March 2007	

1.2 Background to evaluations of NDLP and tax credits

The Reconciliation Project builds on eight published evaluations of NDLP and/or LPWFI and another eight impact assessments of tax credits (see References). These studies of the effect of NDLP/LPWFI are by no means all impact assessments that exist. Several more studies had originally been considered for this project, but were excluded for a range of reasons. We explicitly excluded studies that:

- evaluated the effectiveness of the pilot phases of NDLP or LPWFI (these were typically published before the year 2000);
- produced preliminary or interim findings, which were subsequently updated (we included the updates instead);
- only provided qualitative evidence;
- did not give estimates of the impact of NDLP or LPWFI, although they may have included descriptive information about the policies, such as the number of participants and their turn-over;
- explored the impact of elements of NDLP (e.g. sanctions, Innovation Funds), but not the entire programme; and
- evaluated other programmes, which might have affected lone parents, but were not designed specifically to target them (e.g. ONE).

The initial search for tax credit impact studies encountered far fewer reports than was the case for the NDLP and LPWFI evaluations. Beside one study that merely described the new WFTC regime (Brewer 2003), we excluded from our analysis only one further report that estimated the extent of fraudulent CTC and WTC claims but did not provide an analysis of their impacts (Brewer and Shaw 2006).

Although these studies were excluded from the numeric extraction of quantitative impact estimates, their content and information would, in several instances, still have contributed to the Reconciliation Project indirectly as they enhanced our understanding of the NDLP and LPWFI processes and of the details of tax credits.

2 Issues in reconciling NDLP and LPWFI impact assessments

Summary

The New Deal for Lone Parents (NDLP) and Lone Parents Work Focused Interview (LPWFI) evaluations employed different research methods. Along with differences in the nature of the two programmes, variations in research methods limit the extent to which evaluation findings are directly comparable.

NDLP was a voluntary programme targeting all lone parents on Income Support (IS), LPWFI were mandatory and their introduction and various extensions targeted different lone parent populations. Whether a programme is voluntary or mandatory can make a real difference to impact estimates because voluntary programmes typically reach a more motivated and potentially more work-ready population of participants and, for this reason, may be more successful. However, they also tend to reach fewer eligible individuals. Also, because they tend to attract motivated participants, there is a high proportion of deadweight in the outcomes – that is, many of those who enter work through the programme would have done so anyway. In this study, additionality rates are estimated that relate impact estimates to gross IS exit or employment entry rates in order to increase the comparability of impact estimates. These need to be interpreted with care even so – a higher figure for additionality does not necessarily imply a ‘better’ programme.

Continued

Other factors that complicate the reconciliation of impact estimates are the changing economic conditions at the time of the evaluations, which stretched from late 2000 to late 2004. The characteristics of the target population of lone parents differed between the two programmes and also between the LPWFI extensions; they probably also changed during this period and since then. To the extent that these changes have occurred, some of the evaluation results may not necessarily apply precisely in the present day.

The NDLP evaluations used Propensity Score Matching (PSM), which can result in a closer match of programme and comparison group than Difference-in-Differences (D-i-D) might achieve. D-i-D was the method used to evaluate LPWFIs. However, the way in which PSM was used in the NDLP evaluations meant that its findings only related to a specific group of participants that was less than the total eligible and participant population. D-i-D was, in contrast, used to estimate programme impact on a larger group of LPWFI-eligible lone parents, regardless of their participation status. The latter findings, therefore, describe the programme's impact on the larger potential and actual population of participants.

The different approaches reflect the different programmes. For LPWFI, the intent was that all in the target cohorts would participate and, in fact, the greatest majority did, making it reasonable to estimate the impact on the target group. For NDLP, it was always expected that only a minority would participate, making it more sensible to look at the impact on those who did.

The concurrent roll-out of Jobcentre Plus and the repeated annual extension of LPWFI restricted, sometime severely, the scope and scale of the evaluations. As a result, the studies covered successively smaller samples of eligible lone parents and monitored their progress over shorter observation periods. The findings can, therefore, only be applied to sub-sections of the actually eligible programme group targeted only at certain times of a year (thus not allowing for some of the seasonal effects).

2.1 Introduction

In this section, the principal analytical approaches taken by the evaluators of NDLP and LPWFI are described and the methodological challenges that they had to address in order to deliver robust and reliable impact estimates are discussed. The objective is not to provide a case-by-case analysis or critique of the methodology adopted by individual studies, but to offer a general overview and to alert the reader to the complexity of the research at hand and the practical challenges that the evaluators had to address and overcome. Chapter 3 will review the approaches adopted by the tax credit studies.

2.2 Focus and method of analysis

As noted earlier, the evaluations of NDLP and LPWFI not only sought to estimate the two policies' individual and distinct impacts but also to identify the incremental impact of each policy when both were available to, and were taken up by, eligible lone parents. Moreover, the evaluations covered different extension phases of LPWFI and, in later studies, the impacts of the annual and six-month LPWFI Review Meetings (RMs) that were introduced in 2002. Evaluations of RMs were limited to the first of these meetings that lone parents were asked to attend.

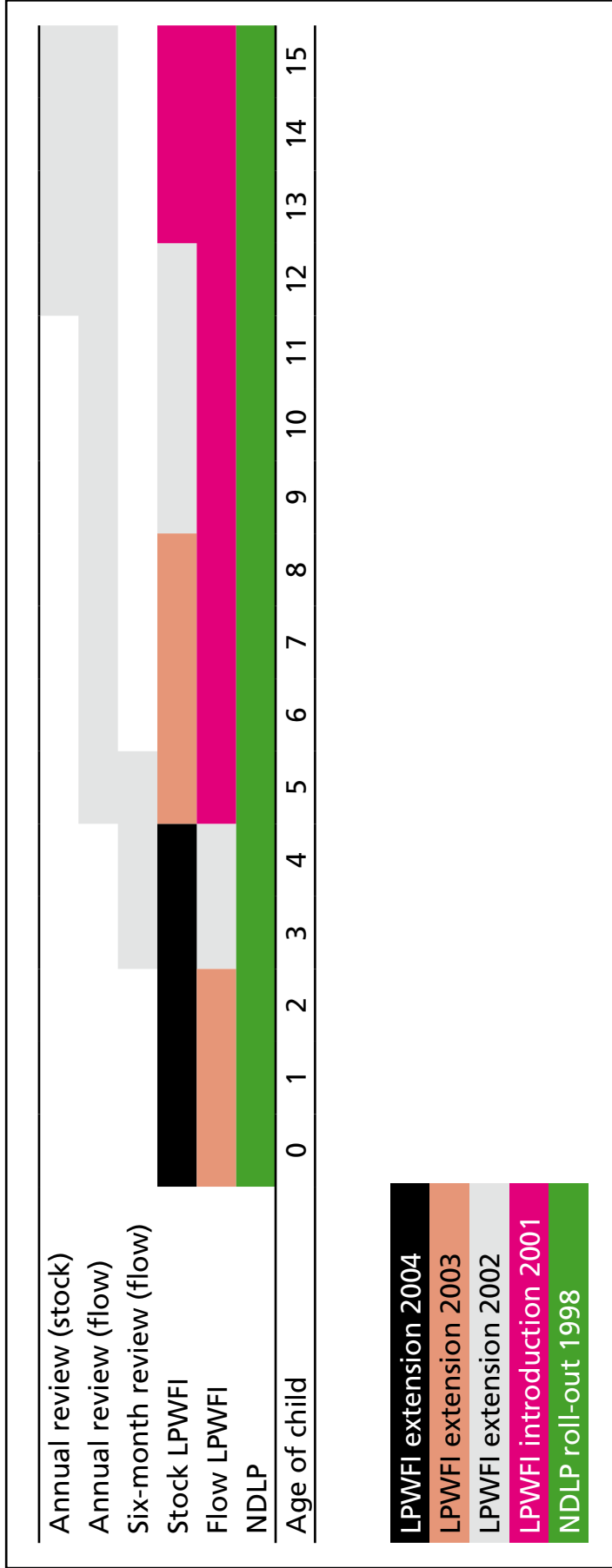
Figure 2.1 illustrates in a graphical format the groups of lone parents that become eligible or, more precisely, were targeted by NDLP, LPWFI and LPWFI extensions that were also evaluated. As noted earlier, eligibility varied by the age of the lone parent's youngest child and was successively widened over the years.² Eligibility also varied according to the IS claimant's status as either a new or repeat claimant (or flow) or an existing (or stock) claimant.³

It is important to note that each LPWFI extension or RM evaluation only sought to estimate the impact of the interview or meeting on those lone parents that had become newly eligible for the respective aspect of the programme. The evaluations, therefore, did not repeat and update LPWFI and RM impact assessments on lone parent groups that had already been eligible and subject to an impact evaluation in previous years. As a result, the available impact assessments referred to different years, which makes comparisons of impact estimates pertaining to different eligible lone parent groups difficult. At the same time, it cannot be assumed that programme extensions directed at different target groups are similarly effective. This is because lone parents whose youngest children are of markedly different ages are likely to face different barriers to taking up paid work or to exit from IS. Finally, the impact estimates were themselves of different 'ages', some referring back to five or more years ago. Their relevance to present-day NDLP and LPWFI is likely to vary.

² The illustration rounds the ages to the nearest full year – for details of exact age ranges, see above.

³ For convenience, hereafter, the terms 'new and repeat' and 'flow', and 'existing' and 'stock' claimants will be used interchangeably.

Figure 2.1 LPWFI-eligible lone parent groups, by age of youngest child, covered by policy evaluations



For the evaluators, the steady extension of NDLP and, in particular, LPWFI posed additional problems, especially in later evaluations. In order to estimate the impact of a policy reliably, best practice in evaluation methodology requires the use (and presence) of a comparison group not subject to the policy. The evaluation contrasts changes in the behaviour that a policy is expected to induce in the targeted population with that observed among the comparison group. As more and more lone parents became eligible for, and targeted by, NDLP or LPWFI, the potential pool of lone parents from which a comparison group could be drawn diminished. As will be seen further below, the absence of suitable comparison groups inhibited the impact evaluation of some of the LPWFI extensions and their review meetings.

2.2.1 Principal research methods

The NDLP evaluations included in the Reconciliation Project used PSM to estimate the programme's impact, whereas the evaluations of the LPWFI introduction, extensions and review meetings used the method of D-i-D.

D-i-D requires impact data for the period before and the period after the introduction of the policy whose impact is measured. The impact data may be the proportion of individuals in the programme and in the comparison group who are employed or who are claiming benefits. These are the principal indicators used in the evaluations considered in this review. D-i-D records the proportions for both groups and subtracts the values pertaining to the period after the introduction of a policy from those pertaining to the period before. It, thus, produces two before-after estimators; one for the programme group and another for the comparison group. The difference between the two before-after estimators is the estimated impact of the intervention. This impact might be positive or negative, depending on whether the proportion of those in employment or exiting benefit among the programme group is greater or less than that among the comparison.

While the before-after estimators control for individual effects that influence impact estimates, the subtraction of the two estimators also seeks to control for trend effects and the effects of any other changes, either in policies or in the economy. D-i-D assumes that, once these intermediate effects are taken into account, the final estimate is a genuine measure of programme impact. To produce a firm estimate of programme impacts, the comparison group that is used in the D-i-D to describe what would have happened in the absence of the intervention still ought to be similar to the programme group so that it is plausible to assume that the two groups are equally affected by other factors, such as changes in policy or in the labour market. D-i-D controls for observable differences between the two groups and assumes that any unobservable variables remain stable over time and, therefore, do not affect the impact estimation. Ideally, one would test the validity of the D-i-D assumptions but this is not always possible.

When the programme that is being evaluated is universally available to a population fitting given eligibility criteria, a genuinely similar comparison group is rarely

available. In these instances, statistical adjustments are made in the course of impact estimation to control for characteristics that differ between the programme and the comparison group, and which are known or suspected to affect outcomes. The characteristics typically controlled for in the evaluations using D-i-D were: gender, age of claimant, number of children, Government office of the regions, travel-to-work unemployment rate.

The choice of control variables was also informed by observed changes in these characteristics among the programme and comparison group during the period before and after the evaluated policy was introduced. These conditions also needed to be held stable in order to produce reliable impact estimates. However, this can only be done if at least some individuals in both the programme and the comparison group share these characteristics, although the proportion in each group that does so may differ. The universal eligibility for LPWFI of lone parents with youngest children of a given age meant that no comparison group member shares that child-age characteristics, which D-i-D was, therefore, not able to control for. The greater the differences in the ages of youngest children in the programme and the comparison group, the greater was the risk that the D-i-D analysis would yield unreliable results.

PSM also relies on the use of a comparison group alongside that of the programme group. Evaluators using PSM seek to construct a comparison group that matches individual members to individuals in the programme groups, based on a range of shared characteristics. Unique to PSM, these characteristics seek to capture the propensity – or likelihood – that a person might participate in a programme. The selection of these variables is typically informed by existing evidence and knowledge of the factors that determine programme participation. PSM requires that these factors remain constant and do not change while the programme and the comparison groups are observed.

The variables that are being controlled for are not dissimilar to those used in D-i-D and include, for instance, gender, age, region and the number of children. PSM estimates a single score for each individual based on the statistical regression of these and any other variables considered relevant; the programme group member is then matched to a comparison group member with the same score. PSM often applies upper limit cut-off points for propensity scores because no further matches in the comparison population can be found. As a result, the treated group that is being evaluated is frequently smaller than the total programme group. In the case of the NDLP evaluations, the effect of this was studied by Dolton *et al.* (2006), but not found to significantly change impact estimates.

The propensity to participate in a programme is often informed by personal attitudes and motivation, which evaluations based on PSM should take into account. The NDLP evaluation by Lessof *et al.* (2003) was able to include indicators of motivation and attitude in the PSM-based analysis because it had asked the relevant questions in their survey of participants and non-participants. In contrast, evaluations relying on administrative data (e.g. the LPWFI evaluations) typically do not have measures

of attitude available to their analyses. It has, however, been argued that detailed administrative data are sufficient to reflect factors, such as motivation.

An important aspect in the selection of control variables is the PSM baseline test. This test requires that both the programme group and the comparison group show similar trends in the impact indicator variable **before** the programme is implemented. If programme and comparison groups are well matched, their trend lines, for instance, in the proportion of IS claimants amongst them over the previous year or years, should be near identical. Only if this test is passed, can PSM be expected to produce reliable impact estimates.

PSM and D-i-D can be and, indeed, have been used in combination. In these instances, PSM serves to control for differences in the characteristics of programme and comparison group members, before D-i-D is applied. The advantage of PSM over other regression-based methods controlling for these differences is that PSM tends to result in a closer match and, hence, more similar sample groups and requires fewer assumptions, for instance, about the precise nature of the relationship between observable variables and outcomes. On the other hand, PSM may restrict the extent to which the impact of a programme can be estimated for **all** participants or for **all** eligible individuals if not enough matches with identical, or at least similar, propensity scores are identified.

2.3 The scope of evidence presented in the evaluations

2.3.1 Impact indicators

NDLP and LPWFI share two key objectives: to encourage and assist lone parents (1) to seek and obtain employment and (2) to move off IS. Secondary – and more specific – objectives include enabling lone parents to move off working-age social security benefit altogether and/or assisting lone parents who work part-time to increase their weekly hours doing paid work.

These objectives are reflected in the choice of impact indicators adopted by the various NDLP and LPWFI (introduction, extension and review meeting) evaluations. Most studies sought to estimate the impact of the relevant intervention on the rate (or proportion) of eligible lone parents moving off (or, occasionally, remaining on) IS. However, the further analyses of the original NDLP impact data by Dolton and colleagues (in Knight *et al.* 2006; and Dolton *et al.*, 2006) also considered movements off other working-age social security benefits, namely Jobseeker's Allowance (JSA) and Incapacity Benefit (IB). Lone parents can move between these benefits if their employment or health status changes. Incorporating all social security benefits in the impact analysis tightens the conditions under which the policy objective of a reduced reliance on social security benefits is achieved. It can also make it harder to detect an impact. All studies estimated either IS or IS/JSA/IB exits, but never both. As a result, direct comparisons across evaluations are not always possible.

Only the NDLP evaluations (Lessof *et al.*, 2003; Dolton *et al.*, 2006; and Dolton and colleagues in Knight *et al.*, 2006) provided estimates of the impacts on lone parent employment. The original NDLP evaluation by Lessof *et al.* (2003) was the only study to provide impact estimates of the take-up of **full-time** employment (rather than any type of employment) and the subsequent employment exit rates among the programme and comparison groups (compare Lessof *et al.*, 2003, p. 113, Table 7.3.3). None of the LPWFI evaluations provided employment impact estimates.

2.3.2 Sub-group analyses

Analyses of the impact of policies on sub-groups of lone parents, such as lone parents of different age, educational qualification or minority ethnic background, were only reported for the NDLP evaluation.

2.4 Study-specific factors affecting comparability across evaluations

Reconciling evidence from different evaluations pertaining to the same programme, or part of it, requires impact data to be comparable. In this section, features of the evaluation studies, their focus and their analytical approaches are described that limit comparability and that would need to be taken into account when considering comparisons of studies, in particular, those covering different phases of NDLP or LPWFI. Three types of additional differences have been identified that affect comparability.

First, all LPWFI evaluations are based on the programme-**eligible** population, whereas the original NDLP evaluation and its subsequent additional analyses (Dolton *et al.*, 2006; Knight *et al.*, 2006) estimate impacts for programme **participants**. The group of programme participants is inevitably smaller than that of the group of individuals eligible for participation or mandated to participate. In the case of LPWFI, Department for Work and Pension (DWP) performance statistics suggest that about one in ten lone parents fails to attend LPWFIs; about 90 per cent do attend (DWP, 2007). LPWFI evaluations, however, suggested a higher non-attendance rate of about one-quarter of new or repeat lone parent IS claimants and up to half of existing claimants (e.g. Knight and Lissenburgh, 2004).⁴ Failure to attend can occur for a range of reasons, including the Personal Adviser (PA) waiving initial obligations to attend the interview, or the lone parent taking up employment. In the case of NDLP, current DWP statistics suggest that, over the period of one year, about seven per cent of lone parents who attended a LPWFI join the NDLP caseload. The original NDLP evaluation study found that six per cent of lone parents on IS and sampled in August or October 2000, had joined NDLP by April 2001 (Lessof *et al.*, 2003, Figure 2.2).

⁴ The figures vary, at least in part, because of the different measurement conventions and observation periods adopted.

As will be seen below, the evidence suggests a greater impact of NDLP than of LPWFI on IS exits. However, such comparative findings must take into account the difference in the propensities of lone parents' participation in the programmes. Although most evaluations suggested that this was done – and showed how it could be done – none, in fact, corrected impact estimates to account for the gap between eligibility and participation.

Comparisons of NDLP and LPWFI impacts are further complicated by the fact that the definition and logging of participation in the programme lacked precision. In both types of evaluations, participation was defined as having a date for meeting the PA logged on the relevant register, regardless of whether the meeting actually took place. Lessof *et al.* (2003) note that about ten per cent of their participants in the NDLP impact study might not have attended a meeting with a PA at all. It was unclear how many of those logged as 'participants' of LPWFIs had actually attended the interview.

Secondly, the comparability of impact estimates is inhibited by differences in the **definitions** of stock (or existing) and flow (or new and repeat) IS claimants, for whom impacts were reported. Whereas for LPWFI, stock and flow claimants were defined according to the initial eligibility and subsequent extension criteria (see Section 1.1), this was not the case with respect to NDLP. Lessof *et al.* (2003) do not distinguish between stock and flow claimants, whereas Dolton *et al.* (2006) and Dolton *et al.* in Knight *et al.* (2006) constructed their own stock and flow groups based on previous benefit claim histories, which were not consistent with the LPWFI stock and flow definitions. Dolton *et al.* (2006, p. 4) defined flow claimants as '*those individuals not on benefit for over 50 per cent of the time in each of the six quarters prior to the participation window*'. Stock claimants were all remaining lone parents claiming IS. The participation window was the period between October 2000 (the month when the original sample was drawn) and 28 April 2001 (when NDLP participants and non-participants were identified for a subsequent face-to-face survey).

Thirdly, the evaluations used **different methods for reporting impacts**, selecting to present their impacts as cumulative values that do, or do not, take account of the risk of repeat participation. Repeat participation, in this context, describes former IS claimants returning to claiming benefit after a period during which they did not claim IS. Studies that do not take account of repeat participation tend to record higher cumulative impacts than studies that do.

In most instances, impacts were presented for a given number of months following a specific start date for the observation period. For LPWFI evaluations, the latter is fairly uniformly the start date of the IS claim (in the case of new and repeat claimants) or the last working day in the month of April of the year of the evaluation (in the case of existing claimants). The NDLP evaluations chose the NDLP participation as the start date of the observation period. The 'simple' cumulative presentation of impacts includes, for each reported month, the previous months' impacts, without correcting for claimants who had returned to benefit. Impact

estimates that accounted for repeat participation are, in this particular sense, more accurate.

2.5 External factors affecting comparability across evaluations

Besides factors specific to the analysis approach chosen by the evaluators, external factors largely unrelated to the method of evaluation define the extent to which evaluation results are comparable. Four external factors are particularly likely to affect the comparability of NDLP and LPWFI impact estimates:

- the progressive roll-out of Jobcentre Plus during the course of the evaluations;
- different profiles of the lone parent population;
- changes in the economic climate; and
- the voluntary nature of NDLP and the compulsory nature of LPWFI.

2.5.1 Jobcentre Plus

Jobcentre Plus integrated existing jobcentres and Benefit Agency offices to provide a single agency delivering job placement services and social security benefit payments and advice. LPWFI evaluations excluded all areas affected by the Jobcentre Plus roll-out at the time and during the evaluation. This sought to avoid adding further administrative burden on the affected area offices, while ensuring that the evaluations were not adversely affected by introducing then still atypical administrative models that could also be experiencing transitional organisational adjustment problems. As a result of their exclusion, the sample base of LPWFI-eligible lone parents changed with each evaluation. Other pilot areas, such as ONE, and lone parents resident in Northern Ireland were also excluded from sampling. Although this also reduced the size of sample base, this reduction was more stable over time and unlikely to have affected sample sizes to the same extent as the exclusion of Jobcentre Plus areas did. The exclusions meant that only between 24 per cent and 85 per cent of LPWFI-eligible lone parents were included in the evaluation samples (Table 2.1).

Table 2.1 LPWFI-eligible lone parent populations and samples

Stock/Flow	Cohort/period	Reported sample size	Total lone parent population on IS	Percentage sample of total population on IS
LPWFI Introduction 2001				
Stock	At 30 April 2001	57,359	82,979 (1)	69
Flow	August-October 2001	21,216	25,019 (2)	85
LPWFI extension 2002				
Stock	At 1 April 2002	84,743	181,721 (3)	47
Flow	June-October 2002	14,729	62,090 (4)	24
LPWFI extension 2003				
Stock	N/A	N/A		
Flow	June-October 2003	13,513	44,052 (5)	31

Note: stock = existing IS claimants on 30 April 2001 and still claiming at date shown in table; flow = new/repeat IS claimants. (1) Lone parents claiming IS on 30 April 2001 with youngest child aged 13 to 15.75 years; excludes lone parents on IS who were also on IB on 30 April 2001. (2) Lone parents who flowed onto IS, excluding those on IB, with youngest child aged 5.25 or more, in the period 1 August 2001 to 31 October 2001. (3) Lone parents claiming IS on 30 April 2001 and still claiming 1 April 2002 with youngest child aged nine or older and not included in (1). (4) Lone parents who flowed onto IS, excluding those on IB, with youngest child aged three or more, in the period 1 June 2002 to 31 October 2002. (5) Lone parents who flowed onto IS, excluding those on IB, in the period 1 June 2003 to 31 October 2003.

2.5.2 Different profiles of lone parents

The sample base was not only affected by the changing geography of the Jobcentre Plus roll-out, but also by the different target groups of NDLP and of LPWFI and its extensions and by sampling restrictions.

Table 2.2 summarises the key characteristics of lone parents sampled by the various evaluations, reflecting, above all, differences in the groups targeted by the initiatives. Overall, little comparable and similarly presented information is available from the various evaluations, although regional breakdowns highlight basic similarities in the geographical distributions of the samples. Comparisons are complicated by the fact that different studies sampled different cohorts and/or merged stock and flow populations. Key features of the different samples were:

- the two groups of stock claimants were older than new or repeat claimants, and the lone parent stock affected by LPWFI introduction was, on average, older than the LPWFI extension sample;

- new/repeat claimants cohort sampled to evaluate the LPWFI introduction were, on average, older than those sampled to evaluate the later extensions;
- the 2002 samples included a larger proportion of male lone parents than other samples;
- the NDLP sample was most similar in their age distribution to the LPWFI 2002 extension sample; and finally
- there were fewer differences with respect to the number of lone parents' children, although the LPWFI 2001 stock and the LPWFI 2002 and 2003 flow cohort were particularly likely to have just one child.

Evidence from a range of studies suggests that having fewer children, being male and being older increase the chances of a successful and speedier return to work after a period of claiming IS (e.g. Evans *et al.*, 2004). The different lone parent characteristics, therefore, are likely to affect impact estimates and their comparability.

However, whereas some population sub-groups may find it easier to return to work than others, the impact of a programme designed to assist IS claimants into work may be greater among sub-groups with greater barriers-to-work.

Sampling for LPWFI evaluations was restricted by LPWFI extensions, including the final extension in 2004, and the introduction of review meetings. To produce robust evaluations, lone parents (programme and comparison groups) needed to be sampled in such a manner that they were not going to be affected by the new policy change as this would have invalidated the results. In practice, this meant curtailing the observation period and, in the case of new and repeat claimants, focusing on two or three cohorts of lone parents within each evaluation, sampled over different three- or fourth-month periods.

Evaluations that curtail observation periods to less than a year cannot take account of seasonal factors and may, thus, produce partial results. The use of cohorts can, in principle, enhance opportunities for exploring the seasonal effects of policies, which are particularly likely to affect lone parents whose availability for work is very much circumscribed by seasonal factors, such as school timetables and vacations. In reality, however, the evaluations could not track all cohorts over time and reliable impact estimates were typically obtained for only one lone parent cohort. The impact estimates for new and repeat claimant should, therefore, be read as strictly applicable only to lone parents starting or restarting claims during the given part of the year.

Table 2.2 Lone parent characteristics – evaluation samples (column percentages)

Cohort breakdowns	Categories	NDLP		LPWFI introduction		LPWFI extension 2002		LPWFI extension 2003	
		August/October 2000 Core sample	April 2001-April 2002 New/repeat claims (flow)	Existing claims (stock)	June-October 2002 New/repeat claims (flow)	Existing claims (stock)	June-October 2003 New/repeat claims (flow)		
Gender	Male	6	13	14	6	9	5		
	Female	94	87	86	94	91	95		
Age groups	Under 25	18	3		23		45		
	25-29	42	13		28	9	25		
	30-34		26	10	26	25	17		
	35-39	32	28	27	15	30	10		
	40-44		18	28	6	20	3		
	45-49	9	8	18	1	10	1		
	50 or more		4	16	0	6	0		
No of children at start of claim	1	42	49	57	42	41	49		
	2	34	34	34	33	36	29		
	3	16	13	8	16	16	14		
	4 or more	9	4	1	8	7	9		
<i>N (Unweighted)</i>		41,064	78,418	82,802	14,729	84,743	13,513		

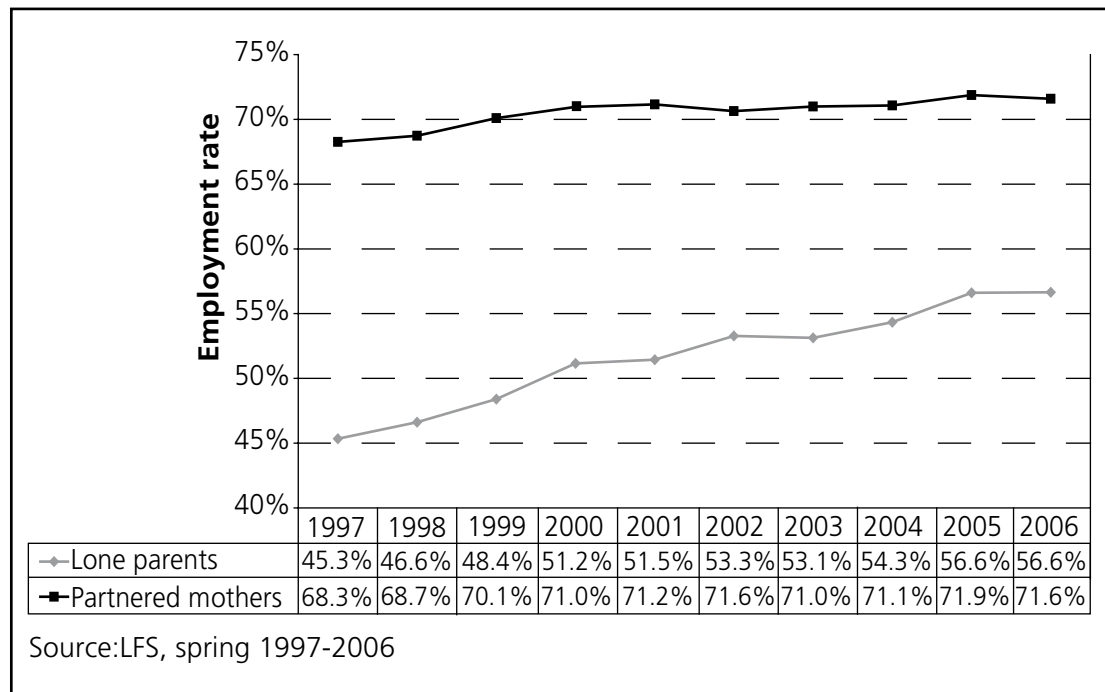
2.5.3 Changing economic climate and the policy environment

Changes in the national economy and policy environment were likely to have affected the performance of NDLP and LPWFIs in two ways: First, as policy development progressed, its focus changed onto different lone parent groups, while its delivery was also likely to improve, becoming more effective and efficient as structures and delivery approaches became more 'embedded' in the institution. The context in which the policies were delivered also changed, in particular because early users of interventions typically and systematically differ from later users.⁵ A specific case of other policies affecting NDLP and LPWFI outcomes was maternity leave regulation, which caused evaluators to exclude lone parents with children aged under one from their samples.

Second, while activation policies, such as NDLP and LPWFI, play an important role in encouraging more unemployed or inactive individuals into the labour market, the effectiveness of such initiatives is subject to macro-economic factors, that is, the strength of the national and local economies. As can be seen from Figure 2.2, employment rates for lone parents increased sharply between 1997 and 2006, and did so more than employment rates of partnered mothers, albeit rising from a lower initial level. Employment growth among lone parents generally exceeded that of other social groups – and of the labour force as a whole. The extent to which active labour market policies contributed to this rise was explored in some of the Working Families' Tax Credit (WFTC) evaluations.

⁵ Whereas some of these changes might increase programme impacts, there are also potential reasons why impacts may lessen: Firstly, there may be a significant number among the stock of IS claimants who needed relatively little prompting to seek a return to work and will provide some early positive programme results. Secondly, there may be 'Hawthorne effects', that is, an initial surge in participation and work placement caused by heightened management attention, but which subsequently recedes.

Figure 2.2 Employment rates for lone parents and partner mothers, 1997-2006



2.5.4 Voluntary compared to mandatory programmes

Finally, if comparisons of the impacts of NDLP and LPWFI are envisaged, it must be borne in mind that the former is a voluntary programme, whereas the latter is a mandatory programme. Voluntary and mandatory programmes, even if identical in content and objectives, attract different types of participants. Voluntary programmes tend to be taken up by participants who are essentially better motivated and, possibly, also better prepared or qualified for participation. Together, these factors make it more likely that, at least in terms of its gross outcomes, the programme is successful or more successful than a comparable mandatory programme might be. On the other hand, voluntary programmes tend to reach fewer of those that they target than mandatory programmes do. Conversely, mandatory programmes are more likely to reach those hardest-to-serve and least likely to participate under their own volition. Finally, evaluations of voluntary programmes typically measure impacts on all volunteers, all of whom would have received the programme services. Evaluations of mandatory programmes tend to look at everyone who is mandated, many of whom may, in fact, not receive the programme services.

Methodologically, voluntary programmes increase the onus on evaluators to control for self-selection effects and, in particular, the potentially greater 'natural' propensity of participants to find employment even in the absence of the programme.

2.6 Improving comparability across evaluations

Whereas in some instances, such as the eligibility-participation gap, it is possible to adjust for differences in the methodology of the impact estimates in order to improve their comparability, in other instances, this is not possible or would involve complex adjustment processes and require additional data that are not normally provided in the evaluations. Complex adjustments of that type are beyond the scope of this reconciliation project.

Our main vehicle for presenting impact estimates in a more uniform and standardised manner is to calculate additionality rates. Additionality rates express the reported impact as the percentage of the gross value that is additional and, by implication, the result of programme. For instance, if the impact of programme participation on benefit exit is estimated to be ten percentage points and the total proportion of programme participants exiting benefits is 50 per cent, the additionality rate is $(10\text{pp} \times 100 / 50 \text{ per cent}) = 20 \text{ per cent}$. Additionality rate gives a clearer impression of the effectiveness of an intervention than simple impact estimates because it sets impacts in relation to what would have happened even in the absence of the intervention. However, additionality rates should be read in conjunction with the impact estimates from which they are derived. This is because similar additionality rates can result from very different impact estimates.⁶ A full comparison of programmes would also need to take account of costs as well as benefits.

Although some of the evaluations invited the reader to estimate additionality rates, they did not present additionality rates themselves. Additionality rates, of course, require knowledge of the relevant gross data (such as gross benefit exit rates in the above example); the NDLP and LPWFI evaluations generally provided these data but not always in the same format as the impact estimates. The evaluation of the incremental impact of LPWFI and NDLP (Knight *et al.* 2006) reports the combined IS/JSA/IB benefit exit rates, while gross rates are listed (in Tables 2.19 and 2.26) for IS exits. The latter can be around ten percentage points lower than IS exit rates alone – and relating combined benefit exit impact estimates to gross IS rather than IS/JSA/IB exit rates is likely to underestimate additionality rates.

In the absence of combined IS/JSA/IB gross benefit exit rates reported in the evaluations, it was not possible to provide an accurate additionality estimate. Instead, we will report additionality estimates based on gross IS exit rates throughout, thus maintaining some consistency.

Estimating additionality rates cannot compensate for the fact that the various impact estimates refer to different lone parent populations and cohorts.

⁶ For instance, a programme with an estimated impact of five percentage points and a gross rate of 25 per cent (of, say, benefit exits) would have generated the same 20 per cent additionality rate but would have had only half the impact of a programme with a ten per cent-the impact and 50 per cent-gross rate.

3 Issues in reconciling tax credit studies

Summary

Six studies of the impact of Working Families' Tax Credit (WFTC) were identified; four of the studies used Difference-in-Differences (D-i-D) to estimate the impact of tax credit on lone parent employment, whereas the other two studies used econometric models. Two studies used panel data, which followed individuals over time, while the remainder used cross-sectional data. All studies used survey rather than administrative data used in the New Deal for Lone Parents (NDLP) and Lone Parent Work Focused Interview (LPWFI) evaluations. All studies estimated impacts on employment but, unlike the NDLP and LPWFI evaluations, not on benefit exits.

3.1 Methodological approaches and comparability with NDLP/LPWFI evaluations

The reconciliation study reviewed six papers published between 2003 and 2005 assessing the impact of WFTC (Table 3.1).⁷ Four of these papers used the D-i-D method that was also used in the LPWFI evaluations. Gregg and Harkness (2003) implemented D-i-D with Propensity Score Matching (PSM) in order to define the comparison group more accurately. Two other papers (Blundell *et al.*, 2004; Brewer *et al.*, 2005) used econometric models predicting individuals' behaviour in response

⁷ Since this study, the first evaluation of Working Tax Credit (WTC) was completed, (Chzhen and Middleton, 2007). The study is not included in this review because it focused on the impact of WTC on the hours that lone (and other) parents worked. The study found that lone parents in receipt of WTC worked statistically significantly fewer hours than matched parent without WTC but there was no apparent effect on working hours in excess of 15 hours a week.

to fiscal and employment policies, while controlling for person characteristics and the economic cycle. Francesconi and Van Der Klaauw (2004) and Leigh (2005) analysed panel data (British Household Panel Study (BHPS) and Quarterly Labour Force Survey (LFS) respectively), whereas the other authors used cross-sectional data.

Table 3.1 WFTC evaluations included in this review

Authors (Year)	Title	Publisher	Place	Approach
Blundell <i>et al.</i> (2004)	The impact of Tax and Benefits Changes Between April 2000 and April 2003 on Parents' Labour Supply	IFS Paper No 52	London	SM
Blundell <i>et al.</i> (2005)	Evaluating the Labour Market Impact of Working Families Tax Credit using difference-in-differences	HM Revenue & Customs	London	D-i-D
Brewer <i>et al.</i> (2005)	Did Working Families' Tax Credit Work? The final evaluation of the impact of in-work support on parents' labour supply and take-up behaviour in the UK	HM Revenue & Customs	London	SM
Francesconi and Van Der Klaauw (2004)	The Consequences of 'In-Work' Benefit Reform in Britain: New evidence from panel data	ISER Paper No 2004-13	Colchester	D-i-D
Gregg and Harkness (2003)	Welfare Reform and Lone Parents Employment in the UK	CMPO Paper No 03/072	Bristol	D-i-D and PSM
Leigh (2005)	Earned Income Tax Credits and Labour Supply: New Evidence from a British Natural Experiment	Australian National University	Canberra	D-i-D

Note: SM = Structural Model; PSM = Propensity Score Matching; D-i-D = Difference-in-differences; OLS = Ordinary Least Squares regression.

All but one paper examined lone mothers' outcomes. Gregg and Harkness (2003) study the effect of WFTC on lone parents, that is, lone fathers as well as lone mothers. Lone fathers constitute about ten per cent of the lone parent population in the UK. Some studies also investigated the impacts of WFTC on the other eligible population, that is, couple families with children; however, we do not report these findings here.

Unlike the NDLP/WFI evaluations, which were faced with the methodological problem of a shrinking pool of non-eligible lone parents who could serve as the comparison group, WFTC studies faced no such problem. This is because, throughout the lifetime of WFTC, individuals or couples without children were ineligible for WFTC and could be used as the natural comparison group used in WFTC evaluation studies.⁸

⁸ Individuals and couples without children became eligible for in-work top-up when WTC replaced WFTC in April 2003.

3.2 Data sources and the periods covered

The authors of the WFTC impact assessments relied upon three different data sources: Blundell *et al.* (2004) and (2005), Brewer *et al.* (2005) used the Family Resource Survey (FRS); Blundell *et al.* (2005), Leigh (2005) and Gregg and Harkness (2003) used the Household LFS. Francesconi and Van Der Klaauw (2004) analysed the BHPS.

Whereas the NDLP/LPWFI studies rely, in part or in full, on administrative data, the WFTC studies, thus, analysed national survey data. Unlike administrative data, survey data are subject to sampling error, measurement error and recall problems⁹. This renders them generally less precise than administrative records.

All WFTC evaluations estimated the impact of the tax credits on the employment of lone parents, but not, as the NDLP and LPWFI evaluations did, the rate of benefit receipt or exit. The observation periods during which the WFTC employment impacts were studied varied from periods as short as 15 months to as long as four years. Across the studies, the observation periods often overlapped as different studies investigated similar time periods, but some started their observations earlier, while others continued them into more recent years. The years prior to the introduction of WFTC that were assumed as the baseline for the study of impact also varied between studies. Despite these differences, the estimates of the impact of WFTC on lone parent employment are generally consistent with each other.

3.3 Assumptions on the influence of NDLP and of economic changes

Using D-i-D or structural equation models (SMs), the WFTC evaluations controlled for the effects of the economic cycle on the target and comparison groups. They isolated the effect of WFTC all other factors being equal, i.e. the only perceptible difference between target and counterfactual groups was that only the former had dependent children and was eligible for WFTC. However, whereas evaluations based on SMs compare constant populations of lone parents, those using D-i-D compare lone parents to other population groups, typically, single adults without children. Whereas SMs, thus, tend to capture only the differences and effects of tax and benefit changes, D-i-D-based evaluations may also inadvertently capture other policy changes that may have affected one, but not (or differently) the other population group.

⁹ Lessof *et al.* (2003) provide an example of the problem of recall. They found that in their sample of NDLP participants who started a job after their involvement with the programme, 38 per cent claimed to have received WFTC, whereas administrative records suggested the figure was as high as 75 per cent.

The impact estimations of WFTC, especially those using D-i-D, may, therefore, have been affected by the parallel impacts of NDLP or LPWFI, which would not have been available to the comparison group and/or could have raised awareness of WFTC especially among lone parents. None of the studies explicitly allowed for these parallel impacts of the NDLP/WFI programmes. Although most papers acknowledged that their estimated impact of the WFTC programme included also the effect of NDLP and LPWFI, there was no systematic attempt to control for these effects. Instead, if the confounding effects of NDLP or LPWFI were acknowledged¹⁰, they were claimed to have been negligible relative to the more substantive impact of tax credits.

Gregg *et al.* (2006), reviewing several studies of active labour market policies (ALMP), including NDLP/LPWFI and WFTC, suggest that a reasonable estimate of the impact of all ALMP programmes (financial as well as non-financial) is of five percentage points, with one percentage point due to the NDLP/LPWFI programme¹¹. However, the authors acknowledge that such estimates depend on several assumptions and should be treated with caution.

3.4 Impact indicators and their definition

The WFTC evaluations estimated the impact of WFTC on the probability of doing any work, regardless of the hours worked. But lone parents (and families) only ever became eligible for WFTC if they worked at least 16 hours per week. WFTC should, therefore, be expected particularly to impact on working 16 or more hours, either by reducing the proportion of lone parents out of work or working fewer than 16 hours. Only three evaluations reported the impacts for working 16 or more hours separately.

The evaluations are less consistent in their use of terms to describe their impact indicators, using 'employment', 'employment rate', 'joining the labour market', 'labour market participation' or 'working more than 16 hours a week' seemingly interchangeably. In most instances, this use of terminology appeared to reflect a lack of precision rather than variations in definitions of impact indicators. However, it complicated comparisons of impacts with baseline or gross rates.

As in the case of NDLP and LPWFI (see Section 2.6), we sought to enhance the comparability of WFTC impact estimates and to provide a more meaningful measure of relative impact, by estimating additionality rates. In the absence of precise impact indicator definitions and their consistent use within and across studies, this can be problematic. In most instances, however, we conclude that impact estimates relate to changes in the number or rate of lone parents in employment, regardless of the number of hours worked. In estimating additionality rates, we relate these changes to survey estimates of employment, obtained from LFS annual figures.

¹⁰ Francesconi and Van Der Klauuw (2005), and Gregg and Harkness (2003).

¹¹ Gregg *et al.* (2006), p.49-50. The authors do not specify explicitly over which period these gains occurred.

Unfortunately, these are only approximate estimates. The LFS estimates are annual figures. The survey data used by the papers are based on monthly figures, with variable start and end points. The corresponding lengths of the periods are not necessarily representing full years, but fractions of them. Therefore, the estimated additionality rates are not necessarily using comparable figures. Furthermore, the LFS estimates follow the International Labour Organisation (ILO) definition of employment, which is not the same as the one adopted for the terms of eligibility to WFTC.

4 Findings from policy evaluations: impact estimates

Summary

The studies reviewed in this section produced largely compatible and robust estimates of the impact of New Deal for Lone Parents (NDLP) and Lone Parent Work Focused Interview (LPWFI) on lone parents exiting Income Support (IS) and of Working Families' Tax Credit (WFTC) on lone parent employment rates.

The two principal NDLP evaluations produced similar impact estimates: about 23 or 26 percentage points more exits from IS within nine months of participating in NDLP (Table 4.1). But because they also produced rather more different exit rates from IS for all participants and non-participants, the impact estimates by Dolton and colleagues resulted in lower additionality rates. Any differences are mainly the result of the Dolton *et al.* estimates requiring exits from all work-related benefits (IS, Jobseeker's Allowance (JSA), Incapacity Benefit (IB)), whereas the estimates by Lessof *et al.* were based on IS exit only. Dolton *et al.* also took account of lone parents who had exited from IS but returned as repeat claimants at a later stage during the evaluation (repeat participation). The initial NDLP evaluation by Lessof *et al.* did not control for this. Finally, the studies by Dolton *et al.* were based on all NDLP participants and not, as in Lessof's study, more narrowly focused on those who participated in NDLP only after they had agreed to participate in the NDLP evaluation. This resulted in Dolton *et al.* evaluating the impact on a more work-ready population of lone parents, who were generally more likely to exit IS. In turn, this lowered the additionality rates.

Continued

The two teams' estimates for NDLP participants' employment entry differed more substantially (Table 4.2). Whereas Lessof *et al.*, estimated that NDLP had increased the proportion of lone parents entering employment by 24 percentage points within nine months of participation, Dolton *et al.* estimated that this figure was ten percentage points. Additionality rates estimated for this study were also lower for Dolton *et al.* than for Lessof *et al.*. The reasons for this discrepancy were again most likely differences in accounting for repeat participation and differences in participation samples, to some part affected by the use of administrative (Dolton *et al.*) rather than survey data (Lessof *et al.*).

Unlike NDLP, which was a voluntary programme in which about seven per cent of eligible lone parents participate, LPWFIs were mandatory, rolled out over successive years to lone parents based on the age of their youngest child. About three-quarters of eligible lone parents participate in LPWFIs. Impact estimates for LPWFI were rarely statistically significant for new and repeat (or flow) claimants (Table 4.4). In contrast, at an additional one or two percentage points, LPWFI statistically significantly increased the IS exit rates of existing (or stock) claimants within six to 12 months of eligibility to participate. The additionality rates of these increases were six to 12 per cent. These rates were, thus, substantively below those achieved by NDLP, but, as noted earlier, as a voluntary programme evaluated only for actual participants, NDLP was likely to achieve higher additionality rates. If non-participation in NDLP (about 93 per cent of all eligibles do not participate) is taken into account, the NDLP impact on IS exits is approximately 1.7 to two percentage points and, thus, much closer to the LPWFI impacts. Across the entire population of programme-eligible lone parents, the additionality rates of both programmes are, thus, fairly similar.

LPWFI impact estimates did not typically account for NDLP participation. The only study that sought to do so concluded that LPWFI impacts were probably small, if not negligible, and that the largest effect was due to NDLP participation (Table 4.5). Likewise, annual and six-monthly LPWFI review meetings, introduced in 2002, had only a small extra effect on LPWFI, serving perhaps to remind IS recipients of the support available to help them exit IS (Table 4.6). Analyses of the impacts of NDLP and LPWFI on sub-groups of lone parents consistently highlighted the greater impact of both programmes on lone parents with greater barriers to work, e.g. lone parents with longer claim records, shorter work histories and lower educational attainment. The differences were particularly large, except for NDLP's impact on employment entry.

Continued

The tax credit studies reviewed here also found positive effects of WFTC (Table 4.11). Of the six WFTC studies identified, five reported statistically significant positive effects of the tax credit on employment among lone parents. The positive effect was found for employment of 16 or more hours per week and for employment of any number of hours per week. Additionality rate calculations suggest that WFTC contributed to up to 50 per cent of the increase in the employment of lone parents, in particular benefiting lone parents with children under the age of 11. Only one study (Brewer *et al.*, 2005) filtered out the unique effect of WFTC, estimating that WFTC had increased lone parent employment by 5.1 percentage points between 1999 and 2002. The remaining studies included the effects of other welfare policy changes that occurred during the observation period. As a result of disincentives to work included in some other policies, the WFTC impacts were most likely underestimated.

4.1 Introduction

This chapter presents the impact estimates extracted from the NDLP and LPWFI evaluations and the tax credit studies, and the derived additionality estimates. The extent to which individual evaluations managed to meet methodological conditions required for their analysis, e.g. treatment-control group matching qualities, will be discussed. Where appropriate, we will provide more detailed descriptions of the methods used. The section also comments on the robustness of individual impact estimates. We begin with presenting the NDLP and LPWFI impact estimates, including those of review meetings, in Section 4.2. Section 4.4 will present the effect estimates for tax credits.

4.2 NDLP and LPWFI impact estimates

4.2.1 NDLP

Two studies explored the impacts of NDLP after its national roll-out in the year 2000. Unlike subsequent evaluations that investigated the impact of the LPWFIs on those eligible (or, more precisely, mandated) to take part, the NDLP evaluations considered the impact on participants.

The initial evaluation (by Lessof *et al.*, 2003) sampled nearly 70,000 lone parents on IS in the months of August and October 2000, who constituted all lone parents eligible, in principle, for participating in the programme at the time¹². Some 6.5 per cent (or 4,245) of these lone parents subsequently took part in the programme in the months until 28 April 2001. This group included around 1,700 who joined the programme **after** they had participated in a postal survey

¹² That is, not only the target group of lone parents whose youngest child was aged three or older.

of the original sample of 70,000 lone parents. The initial evaluation monitored the progress of these 1,700 individuals over a period of nine months, recording changes in their IS benefit and their employment status. The later study by Dolton *et al.* (2006) and further extended by the same authors in Knight *et al.* (2006) used the same sampling data in order to repeat the evaluation, while changing some of the details and the analytical assumptions of the previous evaluation.

The re-evaluations by Dolton and his colleagues were able to link the sample data to the Labour Market System (LMS) and Generalised Matching Service (GMS) databases, which provided benefit and employment information for all of the original sample. This allowed the extended analyses to be based on a larger sample and, hence, to produce statistically more robust impact estimates. In addition, because the study by Dolton *et al.* was able to draw on a larger range of official statistics, it monitored lone parents benefit and employment status for a longer time period (up to 48 months) than the original study had been able to do. It was also able to not only monitor exits from IS, as the Lessof study had, but also exits from other working-age benefits, that is, JSA and IB. The Dolton studies, therefore, applied a stronger benefit exit criterion than the Lessof study had been able and expected to do.

Finally, whereas the Lessof study reported cumulative results without correcting for repeat participation (see Section 2.3), the Dolton study reported these impacts after correcting for repeat participation. In other words, the Dolton studies reported impacts at a given month without former exits who had since started a fresh benefit claim. In practice, for the time periods up to nine months covered by both studies, the stricter application of the benefit-exit criterion by Dolton *et al.* made only a small difference to the impact estimates (Table 4.1). Arguably, the effect was greater on the estimated gross benefit exit, which resulted in markedly lower additionality estimates based on the data produced by Dolton *et al.*.

The impact estimates produced by Dolton and his colleagues for the 48th month of the observation period also included a statistical adjustment to correct for imperfect matching of the programme and comparison groups on the basis of their different pre-programme benefit histories. Dolton *et al.* had added the latter to their Propensity Score Matching (PSM) method. However, this had only a marginal effect on the programme benefit impact estimate.

Table 4.1 NDLP impacts on benefit exit – all lone parents (on IS)

Months after participation	Gross exit rate	Impact on exit rate	Additionality rate (%)
Combined			
<i>Lessof et al. 2003</i>			
3	30.7	24.7	80.45
6	39.3	26.3	66.92
9	46.3	26.2	56.59
<i>Dolton et al. in Knight et al. 2006</i>			
3	38.95	21.89	56.20
9	46.09	22.24	48.25
24	54.16	18.3	33.79
36	58.05	16.47	28.37
48	70.53	19.40	27.51
Flow			
<i>Dolton et al., 2006</i>			
Average (up to 30 months)	N/A	14.24	
Stock			
Average (up to 30 months)	N/A	20.45	

Note: Gross rates refer to participants.

Only two of the impacts reported by Dolton and colleagues in Knight *et al.* (2006) matched the monthly breakdowns reported in Lessof *et al.* (2003): that is, impacts referring to three and nine months after the end of the participation window, which closed on 28 April 2001. Whereas Lessof *et al.* (2003) reported impacts of 24.7 percentage points and 26.2 percentage points respectively for three and nine months after the beginning of the observation period, Dolton and colleagues' (in Knight *et al.*, 2006) estimates were 21.89 percentage points and 22.24 percentage points respectively. In other words, applying the stricter benefit exit definition to also include exit from JSA and IB, and allowing for repeat participation, led to lower impact estimates.

At the same time, Dolton and colleagues' estimates of the total gross benefit exit rate from IS, JSA and IB for lone parents in the total sample was higher than that estimated by Lessof *et al.* (2003), but only after the initial three-month period. Whereas the latter report IS exit rates of 30.7 per cent and 46.3 per cent after three and nine months, Dolton *et al.* reported exit rates of 38.95 per cent and 46.09 per cent. The authors provided no explanation as to why their estimates should initially be higher than those by Lessof *et al.* despite their inclusion of additional benefits and despite their controlling for repeat participation. However, it is quite possible that these higher exit rates reflect the fact that Dolton *et al.* were

able to use the entire original sample of lone parents, which included many non-participants, who might have been able to leave benefits earlier than participating lone parents. Lessof *et al.*, on the other hand, only estimated exit percentages for participants. The programme's additionality rate is lower if based on Dolton *et al.*'s estimates than if one were to use the rates estimated by Lessof *et al.* (2003).

Table 4.1 also shows separate benefit exit impacts reported in the first report by Dolton and colleagues for flow and stock IS claimants, which were averaged over 'up to 30 months'. For analytical purposes, Dolton *et al.* (2006, p. 69) defined stock claimants as '*those individuals who spent more than 50 per cent of the weeks in each of the six 'quarters' prior to the start of the NDLP participation window on benefit and flow is defined as the complement of the stock*'. As noted in the introduction, this definition is unique to the studies by Dolton *et al.* and should not be confused with stock and flow definitions used to define the lone parent populations eligible for LPWFIs. The impact values are averaged over 30 months and are in line with the combined (stock and flow) estimates reported in the later study (in Knight *et al.*, 2006).

Lessof *et al.* and Dolton *et al.* defined the employment impacts of NDLP differently, which prevents a direct comparison (Table 4.2). Whereas Lessof *et al.* (2003) studied entries into employment, Dolton *et al.* (2006, p. 111) observed the state of 'being in employment'.¹³ In other words, whereas the former counted the number of instances that an NDLP participant had entered work after a given time since programme participation, the latter recorded those who had entered **and** remained in work at that point in time. As a result, their gross and their impact rates would be expected to be rather different.

Dolton *et al.* estimated that around 63 per cent of all lone parents on IS in August or October 2000 had left benefits for, and remained in, employment after three and also after nine months, regardless of their participation in NDLP (Table 4.2). Lessof *et al.*'s estimates were lower at 35.5 and 42.6 per cent respectively. At the same time, Lessof *et al.*'s impact rates were higher at over 20 percentage points, but only reached 15 percentage points and ten percentage points respectively according to Dolton and his colleagues.¹⁴ The differences in the two studies' impact estimates was in the expected direction, given the stricter 'in employment' definition employed by Dolton *et al.*. But the differences between the gross entry and 'in employment' rates were not or, at least, larger than might have been expected. Once again, it would appear that differences in the underlying populations, with more work-ready individuals included in the larger sample used

¹³ As in the case of benefit exits, the estimates are cumulative.

¹⁴ Additional descriptive data about lone parents entering employment can be found in Coleman *et al.*, (2003). The authors show that, among lone parents who had participated in LPWFI between August and October 2001, about half of those exiting IS did so because they moved into work. Twenty-one per cent moved onto other benefits, including 11 per cent onto JSA, while 11 per cent lost entitlement to IS because their child had turned 16.

by Dolton *et al.*, might have contributed to markedly different gross and impact estimates.

Gross entry rates for the control groups (that is, the difference between the gross and the impact rates shown in Table 4.2) were already substantially higher according to the calculations by Dolton and colleagues (at month 9: 53 per cent) than those of Lessof *et al.* (25 per cent). This is not entirely unexpected as Dolton *et al.*'s working sample included early participants in NDLP (who were excluded from the Lessof *et al.* study if they entered NDLP before they returned the survey questionnaire) and matched non-participants (who, like early participants, had a higher probability of labour entry). Dolton *et al.* (in Knight *et al.* 2006, p. 111) point out their '*matching process has matched up the NDLP participants with non-participants (who look most like them) who had a more favourable employment history in the pre-treatment window*'. This would have increased their subsequent employment chances and contributed to higher gross employment rates on the control group. The higher these baseline/control group figures, the lower the impacts will be – as they are naturally censored at 100 per cent – and, nationally, only around 50 per cent of lone parents are in employment.

Table 4.2 NDLP impacts on employment and employment entry – all lone parents (on IS)

Phases of NDLP/ LPWFI	Months since participation	Gross rate (%)	Impact rate (% points)	Additionality rate (%)
Employment entry	Lessof <i>et al.</i> , 2003			
	3	35.5	22.1	62.2
	6	42.6	23.8	55.9
	9	49.4	24.2	49.0
Employment	Dolton <i>et al.</i> , in Knight <i>et al.</i> , 2006			
	3	63.4	15.22	24.0
	9	63.37	10.2	16.1
	24	58.78	4.25	7.2
	36	63.2	3.45	5.5
Entry into work of 16 or more hours per week	Lessof <i>et al.</i> , 2003			
	3	28.4	21.9	77.1
	6	34.9	24.5	70.2
	9	41.5	26.4	63.6

Note: Gross rates refer to participants.

Lessof *et al.*'s estimate of work of 16 or hours per week is very close to their total employment estimates, which include work of fewer hours per week. Only full-time work, defined as 16 or more hours per week, precludes further receipt

of IS. In all instances, additionality rates declined over time. Overall, the result supports Dolton and colleagues' conclusions that NDLP had worked particularly well for the most disadvantaged lone parents. It would appear that Lessof *et al.*'s higher impact estimate and the derived higher additionality rate, reflected their comparing less disadvantaged lone parents.

4.2.2 LPWFI introduction and LPWFI extensions

The impacts of the introduction of the LPWFI in 2001 and subsequent extensions of their eligible groups of lone parents in 2002 and 2003 (see Section 1.1) were each evaluated once only so that, unlike the NDLP evaluation, there are no 'competing' impact estimates to be reconciled. Moreover, the evaluations were conducted by research teams based in the same organisation and sharing one or more investigators. The researchers also adopted essentially identical evaluation methods, which increases the extent of comparability. All three studies used the Difference-in-Differences (D-i-D) approach; all three studies estimated exit rates from IS only. The studies, however, encountered some methodological problems.

The D-i-D methodology requires that the impact estimate passes a baseline test. This test explores the similarity in the benefit exit behaviour (i.e. the impact indicator) of the programme and control group before the treatment and similarity in the socio-demographic composition of the respective groups before and after the treatment. The latter is a necessary condition for this type of analysis and can typically be met by controlling for changed characteristics statistically, for instance, by using regression models. The former is more difficult to achieve and has led to the exclusion of some lone parent cohorts from the impact estimations.

Table 4.3 summarises the characteristics of the programme and comparison groups based on the LPWFI eligibility criteria and the need to find similar comparison groups. The D-i-D impact estimations compared the benefit exit rates of the programme and the comparison group in the period after the introduction of LPWFI or their extensions, with the benefit exit rates of the same groups of lone parents, but with claims reaching back to 1999. In the case of the 2003 LPWFI extension evaluation, a further impact estimate for programme and comparison groups sampled for 2003 was conducted. The comparison group that shared the characteristics of the programme group, i.e. the age of the youngest child, in the comparison year (1999 or 2003) was referred to as the 'pseudo-eligible' group. The comparison group with different age ranges for the youngest child were the 'ineligible' group. The before-after estimators were derived by comparing the pseudo-eligible with the eligible, and the two ineligible lone parent groups. The two before-after estimators were subtracted from each other to produce the impact estimate (see also Section 2.1.1).

Table 4.3 LPWFI-eligible and comparison groups, by LPWFI phase

Policy	Analysis Group		Flow (new/repeat)	Stock (existing)
LPWFI Introduction 2001 (Knight and Lissenburgh, 2004)	Programme		August-October 2001 claimant cohort; youngest child 5.25 years or older	Claims in being before 30 April 2001; youngest child 13 to 15.74 years
	Comparison	Pseudo-eligible	As above, for year 1999	As above, reference date 15 May 1999
Ineligible		August-October 1999 and 2001 entrants; youngest child aged one to under 5.25 years	Claims in being before 15 May 1999 or 30 April 2001; youngest child eight to 12 at the reference date	
LPWFI Extension 2002 (Knight and Lissenburgh, 2005)	Programme		June-October 2002 entrants; youngest child aged three to 5.25 years	Claims in being on or before 30 April 2001 and continuing until 1 April 2002; youngest child aged nine to 12 years (or eight to 11 by April 2001)
	Comparison	Pseudo-eligible	June-October 1999 entrants; youngest child aged three to 5.25 years	As above; reference date 15 May 1999; youngest child five to eight years on 15 May 1999
Ineligible		June-October 1999 and 2002 entrants; youngest child aged one - three years	Claims in being before 15 May 1999 or 30 April 2001; youngest child five to eight years on 15 May 1999	
LPWFI Extension 2003 (Knight and Thomas, 2006)	Programme		June-October 2003 entrants; youngest child aged one to three years	N/A
	Comparison	Pseudo-eligible	June-October 1999/2002 entrants; youngest child aged one to three years	N/A
Ineligible		June-October 1999/2002 and 2003 entrants; youngest child aged 16.25 to 18 years	N/A	

Note: All lone parents in programme and comparison groups are IS claimants.

The baseline test sought to establish whether, before the LPWFI introduction or extension, benefit exit rates for all programme and comparison groups for flow and stock claimants were at least similar, if not identical. Few were, possibly as a result of the introduction of WFTC in 1999. Where this was the case, the D-i-D analysis was invalid and, hence, abandoned. Impacts were estimated only for cohorts of lone parents that passed the baseline test.

An additional methodological challenge that the evaluators faced was identifying suitable comparison groups that were not too different from the sampled eligible groups to render comparisons inappropriate, while LPWFI became mandatory for more and more lone parents. LPWFI-eligible lone parents could not be used as comparison groups. Ideally, programme and comparison groups should differ to the least possible extent on the key eligibility criterion, that is, the age of the youngest child. This was achieved in two of the three LPWFI evaluations. The evaluation of the 2003 extension of LPWFIs was based on very different lone parent programme and comparison groups. Whereas the eligible lone parent group was that with youngest children aged one to three years¹⁵, the comparison groups' youngest children were aged 16.25 to 18 years. Arguably, this rather substantive difference in the ages of the youngest child alone made comparisons conceptually difficult – the (motivations for the) labour market behaviours of lone parents of very young children or of adolescent children were very likely to differ, as were the parents' ages.

Moreover, lone parents with older children can typically only claim IS for reasons other than being a lone parent. In fact, the lone parent comparison group of the LPWFI 2003 extension evaluation was disproportionately likely to include lone parents in receipt of the IS Disability Premium (56.1 per cent in 2003, compared to 4.5 per cent of the programme group; Knight and Thomas, 2006, p. 52). The evaluation authors point out that the growth in the take-up of IS Disability Premium that occurred between 2001 and 2002 meant that the baseline was 'not fully stable' (Knight and Thomas, 2006, p. 58). For this reason, they suggested basing the impact estimation on 2002 as the comparison year rather than on 1999.¹⁶ This, however, would leave the 2003 extension evaluation out of step with previous evaluations that used 1999 as the comparison year.

Finally, the continuous roll-out of LPWFIs to ever more lone parents and the introduction of annual and, in particular, six-monthly review meetings, reduced the observation periods available to the analysis during which impacts could be studied. Extensions and review meetings affected the comparison as well as the programme groups and, for this reason, made it difficult, if not impossible, to

¹⁵ In fact, the eligible group was extended to also include lone parents with a youngest child aged under one year, but this group was excluded from analysis because it was affected by other programmes and legislation, in particular maternity leave regulations.

¹⁶ The authors, in fact, produced both estimates.

identify the unique impact of stages of the LPWFI programme over long periods of time. As a result, later evaluations only reported impacts for shorter time periods (up to six months) or fractions of the newly eligible lone parent groups. Importantly, for new and repeat claimants, the evaluations were only ever able to produce reliable impact estimates for individual lone parents cohorts (usually the 'summer cohorts'), but not for all lone parents who became eligible for LPWFI in that year (as they were affected by other policy changes). Impact estimates should be read as applying only to these cohorts and should not be assumed to apply to the year's entire lone parent generation, because seasonal factors are known to affect these impacts.

No stock impact evaluation was conducted of the LPWFI extension 2003.

Table 4.4 summarises the evaluation impacts for the LPWFI introduction and the two LPWFI extensions. The evaluations found evidence of statistically significant impacts on the benefit exit rates of new and repeat (flow) claimants only for the LPWFI extension of 2003. The evidence, however, was only available for the June-October cohort of IS claimants. After three and six months, between seven and 21 per cent of the total aggregate exit rate from IS had resulted from LPWFI. It is important to note that all exit rates are cumulative and estimated at monthly intervals, similar to the method employed by Dolton *et al.* in the NDLP evaluation.

There was stronger and more consistent evidence of a positive and statistically significant impact of LPWFI on stock claimants. However, stock impacts were only estimated for the LPWFI introduction and its first extension in 2002. The initial LPWFIs had a statistically significant positive impact on the benefit exit rate of stock claimants after nine and twelve months. The first LPWFI extension, on the other hand, had a positive, statistically significant impact on lone parents with youngest children aged nine to 12 years as soon as three months after the eligibility date and continued to do so over the next nine months. At around 11 per cent from the sixth month of the observation, the additionality rate of the LPWFI extension 2002 was about twice that of the LPWFI introduction in 2001, or higher.

For reasons of continuity, the impacts of the LPWFI extension 2003 are shown based on comparisons with the 1999 baseline and not adjusted for interactions between the IS entry year and the age range of the youngest child. The latter is known to affect the validity of the estimate. Estimates adjusted for this interaction generated statistically non-significant impacts. Estimates based on the alternative comparison year of 2002 were also statistically non-significant (compare Knight and Thomas, 2006, Tables 3.20, 3.21 and 3.22).

Table 4.4 LPWFI impacts on benefit exit – all lone parents (on IS)

	Months since start of observation	Cumulative gross exit rate (%)	Cumulative impact on exit rate (% points)	Additionality rate (%)
LPWFI 2001 (Knight and Lissenburgh, 2004)				
Flow (August-October cohort)	3	10.2	0.60	5.9
	6	23.30	0.33	1.4
	9	33.8	-0.13	-0.4
	12	41.1	-0.16	-0.4
Stock	3	5.77	0.24	4.2
	6	11.69	0.47	4.0
	9	18.77	1.13**	6.0
	12	25.60	0.79**	3.1
LPWFI Extension 2002 (Knight and Lissenburgh, 2005)				
Flow (June – October cohort)	3	7.4	-0.29	-3.9
	6	22.4	0.47	2.1
Stock	3	5.2	0.31**	6.0
	6	8.9	1.04**	11.7
	9	14.4	1.66**	11.5
	12	17.5	1.98**	11.3
LPWFI Extension 2003 (Knight and Thomas, 2006)				
Flow (June – October cohort)	3	10.3	2.2**	21.3
	6	24.0	1.8**	7.5

Note: LPWFI extension 2003 impacts are based on comparisons with 1999, unadjusted for the interaction between entry years and the age group of the youngest child.

Start of observation for flow claimants = start of claim, for stock claimants = reference date when sampled (last working day in April of relevant year)

Gross rates refer to LPWFI eligibles.

** statistical significance at 5%; * at 10%.

None of the studies estimated the impact of LPWFIs on the employment entry of lone parents. However, data from a longitudinal study of lone parents who had participated in LPWFI 2001 showed that approximately half of lone parents who had exited IS between 12 and 17 months after sampling had moved into employment. (Coleman and Rousseau, 2003, Table 2.12). This was equivalent to about one in five lone parents who had taken part in the LPWFIs. In the absence of similar information for a comparison group, it cannot be said with certainty whether LPWFIs contributed to a higher or lower rate of transitions into employment or made no difference to employment take-up among lone parents. However, in the light of the small benefit exit impacts reported for LPWFIs, their impact on employment entry is also likely to have been small.

4.2.3 Adjusting NDLP impact estimates and exploring incremental NDLP/LPWFI impacts

The LPWFI impacts reported so far were very much smaller than those reported for NDLP. This difference in impacts was largely due to NDLP evaluations having been based on programme participants, whereas LPWFI evaluations were based on programme-eligible populations. It is possible to notionally adjust the NDLP impacts to take account of the low rate of participation in the programme: at the time of the evaluation only about seven per cent of eligible lone parents took part in NDLP. If this figure was used to estimate the impact rates for the entire eligible population, nine months after participation in the programme, it would be between 1.7 percentage points (based on Dolton's impact estimate) and two percentage points (using Lessof's impact estimate). The grossed up figure drops to its lowest point of 1.2 percentage points 36 months after participation in the programme, based on the estimate produced by Dolton and his colleagues. The NDLP impact figures, adjusted for the eligible population, are, therefore, very close to the LPWFI impact estimates. The latter typically include any NDLP effects, which the evaluations did not specifically seek to take account of.

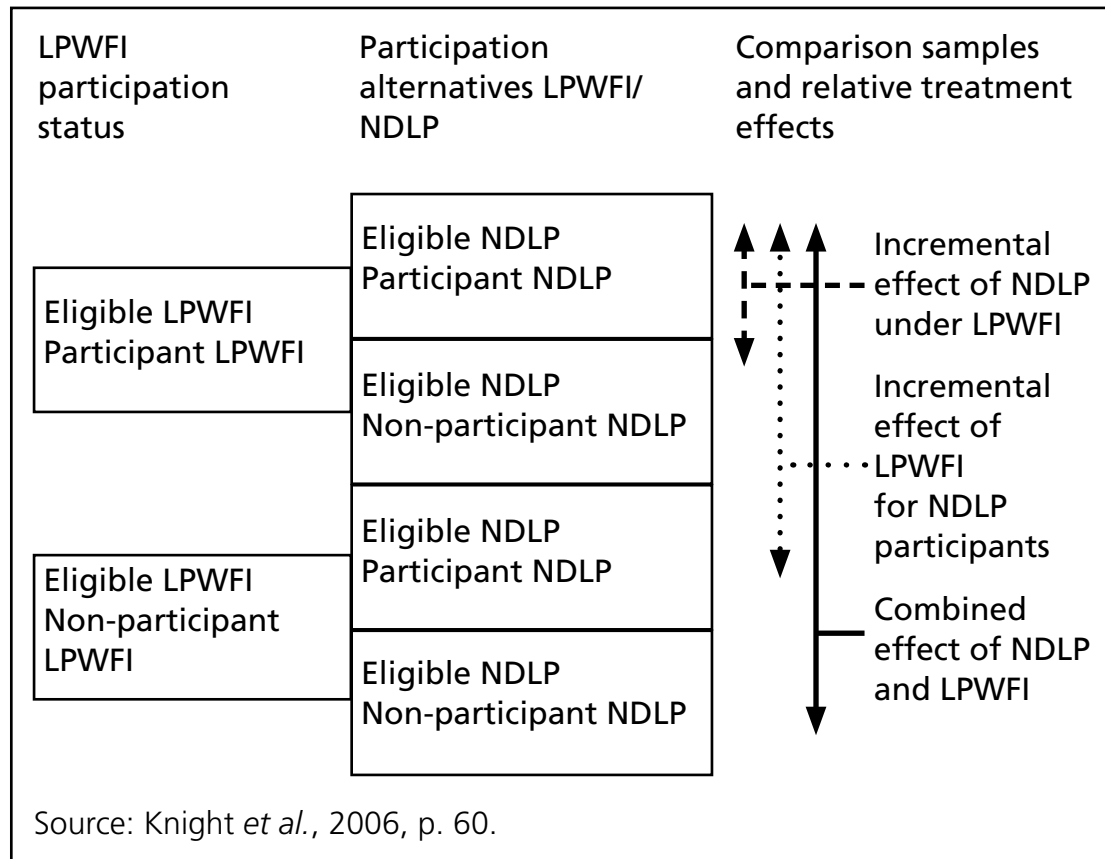
However, Knight *et al.* (2006) sought to estimate the incremental impacts of NDLP and the introduction LPWFI in 2001 on exits from IS in subsequent years. The estimation involved an elaborate comparison of various combinations of LPWFI-eligible participant and non-participant lone parents who entered or did not enter NDLP, as displayed in Figure 4.1. The estimation method built on PSM.

Table 4.5 summarises the extractable evidence. The authors did not themselves report their impact estimates in tabular form, but presented it in the text; we have pulled it together in Table 4.5. It is important to note that, unlike the LPWFI evaluations, similar to the studies by Dolton *et al.*, this incremental LPWFI/NDLP evaluation recorded impacts on exits from IS, JSA or IB, not just exits from IS. This was likely to reduce impact estimates, in particular, relative to the figures presented in Knight and Lissenburgh (2004), who studied the same programme and time period.

With the exception of the combined NDLP and LPWFI effects, the impact estimates were not particularly robust and the authors warned the reader to exercise caution in interpreting the data. Impact estimates lacked robustness for a range of reasons, mostly, however, because of the risk that lone parents in the comparison groups might have entered LPWFIs and/or NDLP after they were assigned to the non-treatment group in 2001. This problem is referred to in the literature as the 'compliance problem'¹⁷, which the evaluators assumed particularly to affect the estimates of the incremental impact of NDLP (Column B in Table 4.5), but also, albeit to a lesser extent, the incremental impact estimates of LPWFI (Column C). All estimates in Column B, i.e. for both, stock and flow claimants, should be understood as merely indicative evidence of the most likely direction of change.

¹⁷ This is sometimes also referred to as the 'contamination problem'; it causes impacts to be understated.

Figure 4.1 Outcomes of NDLP/LPWFI alternatives



The incremental impact estimates for LPWFI, on the other hand, were considered somewhat stronger, because, since LPWFI typically precedes NDLP participation, compliance problems were less likely. The estimates for new and repeat claimants were described as ‘relatively valid and convincing’ (Knight *et al.*, 2006, p. 79); at four percentage points, they were statistically significant 12 weeks into LPWFI/NDLP eligibility. The stock estimates were, on the other hand, described as ‘qualitative evidence’ (*ibid.*, p. 83) because of uncertainty as to the potential effect that the delayed delivery of LPWFI to large fractions of participants had on behaviour and outcomes or on the quality of the caseworker services (*ibid.*, p. 80). Overall, the evidence suggested that the incremental effect of stock claimants participating in LPWFI before entering NDLP was negative. In other words, lone parents with existing IS claims who directly entered NDLP, i.e. self-referred, were more likely to leave IS than those referred by Personal Advisers (PAs).¹⁸

There was additional evidence from Knight and Lissenburgh (2004) that the introduction of LPWFIs in 2001 increased entry to NDLP among the August-October 2001 cohort of new and repeat IS claimants by approximately 15 percentage points in the first year after claim start. This increase was statistically significant at the five per cent level.

¹⁸ We have not reported in additionality estimates because, as noted in Section 2.5, we do not have gross IS/JSA/IB exit rates upon which additionality estimates could be based.

Table 4.5 Combined and incremental NDLP and LPWFI treatment impacts on benefit receipt (percentage points)

Indicator/population	Time since start of observation	Combined effect of LPWFI and NDLP	Incremental NDLP effect	Incremental LPWFI effect
		A	B	C
New/repeat claimants				
% remaining on benefit since the date of eligibility	12 weeks			4*
	51 weeks	2*		
	One year		14	9
	58 weeks	3*		
	18 months	4*	18	5
	'average'		5	
<i>N (unweighted)</i>		40,022	55,260	24,990
Existing claimants				
% remaining on benefits since the beginning of the treatment	12 weeks			
	Eight months		3	
	51 weeks			
	One year		14	
	58 weeks			
	18 months	10	18	
	'average'			Negative
<i>N (unweighted)</i>		32,771	33,002	13,958

Note: *Suggested to be statistically significant in text, but no further details, including level of significance.

Source: After Knight *et al.*, 2006

4.2.4 Review Meetings

In 2002, the first extension of LPWFIs to a new group of lone parents was accompanied by the introduction of mandatory Review Meetings (RMs) of lone parents who had become eligible for LPWFI in 2001 and had remained in receipt of IS since then. Review meetings were conducted after one year for 2001 stock claimants, and annually or semi-annually for 2001 flow claimants, depending on the ages of their children (see Section 1.1).

In order to estimate the impact of review meetings, evaluators needed to disentangle their effect from that of the initial LPWFI. To do so, Knight and Thomas (2006) recorded the benefit exit impacts of LPWFIs for the three programme groups affected by the review meetings over a number of months. They then looked for evidence of a change in impacts around the time that the review meetings took place, i.e. after six and 12 months respectively. In other words, the evaluators were

looking for an added impetus on benefit exit rates of review meetings on top of that already associated with the initial LPWFI.

The estimated impacts of the initial LPWFI and the combined LPWFI/RMs are shown in Table 4.6. The impacts are again shown for a number of months after the claim start (for new and repeat claimants) or the reference date (30 April 2001, for existing claimants). Both, gross and impact exit rates are cumulative. The cumulative combined impact rates that the authors considered when estimating incremental impacts between relevant time periods are highlighted in bold.

New or repeat claimants

Although the evaluators sought to estimate impacts for the entire lone parent populations affected by the RMs, this proved not possible in the case of new and repeat claimants subject to annual RMs. This group included all lone parents, with relevant IS claims, whose youngest child was aged between five years and three months, and 15.75 years. Lone parents in the comparison group would have to have children either younger or older than that age range, requiring, in effect, two comparison groups (as neither on its own would have been a suitable comparator for the entire eligible group). Only lone parents with younger children (youngest child aged one to two years) were found to form a suitable comparison group. To aid comparability, the treatment group was split and RM impacts were estimated only for lone parents with youngest children aged 5.25 to eight years (see Knight and Thomas, 2006, Table 4.1 for details).

Observing patterns in LPWFI and combined LPWFI/RM impacts from just before to just after the period when the RMs were due, Knight and Thomas (2006; Table 4.11, p. 90) concluded, after examining various time periods, that the **annual RMs for new or repeat claimants** added approximately 0.3 percentage points to the LPWFI impact.¹⁹ However, later they also suggest that the impacts might have been as high as 1.75 percentage point if, as Knight and Lissenburgh (2004) had suggested, after 12 months, LPWFI had a zero impact on the full eligible cohort. In Table 4.6, we report the lower estimate of 0.3 percentage points that was calculated for the partial eligible cohort.

Impact estimates of six-month RMs for new and repeat claimants with youngest children aged three to 5.25 years were derived from comparisons with lone parent claimants whose youngest children were aged between 16.25 and 18 years. Estimates were calculated using 1999 or 2000 as the baseline year for separate D-i-D estimations, while a further Before-After Analysis of pseudo-eligible and eligible lone parents was also conducted, using only the 2000 baseline year. The Before-After Analysis had the advantage of not requiring comparison groups and, in this instance, not needing to rely on a group that was rather different from the treatment group. However, Before-After Analysis suffers from its inability to

¹⁹ Note that this related only to lone parents with youngest child aged 5.25 to eight years.

control for historical or trend changes, which may affect impacts. D-i-D controls for these by using suitably matched comparison groups. Only the Before-After Analysis found evidence of statistically significant impacts on IS exit after six and up to 18 months after the initial LPWFI.

Drawing on all three estimations and observing combined impact rates 15 and 17 months after the initial LPWFI, the authors concluded that *'the increment due to the six month review could then be between 1.2 and 1.5 percentage points impact on IS terminations'* (Knight and Thomas, 2006, p. 114). Whereas the authors presented 1.5 percentage points as their preferred incremental impact estimate, they also noted that the estimates *'should be considered as suggestive only'* (ibid.). In Table 4.6, we present the impacts derived from the D-i-D using the year 2000 baseline, as it is methodologically more consistent with other programme impact estimations than the Before-After Analysis. It also shows a leap of around 1.5 percentage points in the combined LPWFI and RM impacts between six and nine months after claim start, which is consistent with Knight and Thomas' preferred estimate.

Existing claimants

The impacts of RMs on stock claimants could not be estimated using the D-i-D methodology, because the programme and comparison groups failed the baseline test that assumed similar, if not identical, pre-programme benefit exit patterns. Instead, Knight and Thomas only conducted a Before-After Analysis, which compared IS exit rates of the pseudo-eligible group of lone parents before LPWFI with IS exit rates of LPWFI eligible lone parents after LPWFI. It omitted further comparisons with a comparison group, as no suitable group of lone parents could be found. The Before-After Analysis concluded that annual RMs for stock claimants led to a 0.5 percentage point rise in exit rates over and above that achieved by the initial LPWFI (approximately 15 months after the initial LPWFI).

In Table 4.6, we summarise the initial LPWFI and, in later months, combined initial LPWFI and RM impacts reported in Knight and Thomas (2006), along with the authors' preferred incremental impacts. The preferred incremental impact estimates refer to the leap in combined impacts during the period highlighted in bold, when compared to earlier periods. In the case of the annual stock claimant RMs, the leap was expected to occur by month 19 after the initial LPWFI, after taking account of their delayed implementation.

The figures in brackets () indicate the contribution of RMs to the combined initial and LPWFI RM impacts, based on the last combined impact estimate displayed in the table. The additionality rate of RM to the combined impacts, therefore, was 19 (annual, flow) and 36 (annual, stock) percentage points.

Table 4.6 Combined initial LPWFI and review meeting impacts on benefit exit – all lone parents (on IS)

Review meetings	Months since start of observation	Cumulative gross exit rate (%)	Cumulative impact on exit rate (% points)	Additionality rate (%)
Flow – annual				
Youngest child aged 5.25 to eight years ¹	3	15.6	0.06	0.38
	6	24.8	1.27**	5.1
	9	34.2	1.30**	3.8
	12	41.2	1.42**	3.45
	15	47.9	1.76**	3.7
	18	52.7	1.61**	3.05
Preferred incremental impact			0.3	(19)
Flow – six-monthly				
Youngest child aged three to 5.25 years ²	3	7.19	0.57	7.9
	6	21.65	0.01	0.05
	9	31.74	1.47	4.6
	12	39.26	0.62	1.6
	15	45.75	-1.14	-2.5
	17	49.77	-0.65	-1.3
	18	51.42	N/A	
Preferred incremental impact			(1.5)	(100)
Stock – annual				
Youngest child aged 12 to 15.75 years ³	3	6.9	N/A	
	6	13.5	N/A	
	9	20.3	N/A	
	12	32.0	N/A	
	15	36.8	0.9*	2.4
	19	N/A	1.4	
Preferred incremental impact			0.5	(36)

Note: ¹ Impacts based on D-i-D, year 1999 baseline; ² Impacts based on D-i-D, year 2000 baseline. Start of Observation for new/repeat claimants = start of claim, for existing claimants = 30 April 2001.

Figures in bold indicate periods between which incremental impacts were measured.

³ Impacts based on Before-After Analysis.

** statistical significance at 5%; * at 10%.

Source: Knight and Thomas (2006).

4.2.5 Referrals and self-referrals to NDLP

In this section, we present estimates of participation rates in NDLP and LPWFI, and the referral rate between NDLP and LPWFIs, beginning with NDLP participation rates. In Table 4.7, the participation rates reported for NDLP can be seen to rise from about four per cent after six months for stock claimants, to 12 per cent 15 months after the first sample date (28 August 2000) for flow claimants.

Since the data refer to the period before the introduction of LPWFI, the NDLP participation rates can also be considered to be self-referral rates. The NDLP sample population for whom the participation rates were estimated included those lone parents with youngest children over the age of three years who received written notification of the availability of NDLP. By contrast, lone parents with children under the age of three would not have received these non-mandatory invites. Table 4.7 shows that the NDLP participation rates for lone parents with youngest children under three years among the main sample²⁰ were a little below the average for all lone parents in the sample in the first year, with the gap narrowing 15 months after the sampling date. Participation rates were highest for lone parents with youngest children aged three to five years and declining steadily for lone parents with youngest children aged five to 11 years or 11 years and over. The participation rate gap was, thus, greatest for lone parents with youngest children under three years and those with children aged three to five years (as shown in Table 4.7). This may be an indication of a positive effect of written notifications of NDLP. However, to draw firm conclusions about the extent of self-referral and the role of targeting lone parents, more thorough analysis, similar to that conducted by the evaluation reviewed here, would be required.

Evidence from a synthesis report suggests that between seven and nine per cent of all lone parents claiming IS participated in NDLP in 2001 and the first half of 2002 (Evans *et al.*, 2003).

²⁰ Participation rates for the boost sample were not reported.

Table 4.7 NDLP participation and referral rates – lone parents, by age of youngest child (percentages)

Phases of NDLP/LPWFI		Number of months after first sample date (28 August 2000)	NDLP participation rates – all sampled lone parents	NDLP participation rates; lone parents with children aged under three years	NDLP participation rates; lone parents with children aged three to five years
NDLP Phase 3 (Lessof <i>et al.</i> , 2003*)	Boost sample	6	5.7	N/A	N/A
		12	10.0	N/A	N/A
		15	12.1	N/A	N/A
	Main sample	6	4.1	3.7	4.8
		12	7.4	7.0	8.8
		15	9.3	9.2	11.3
	Combined	6	4.2	N/A	N/A
		12	7.5	N/A	N/A
		15	9.4	N/A	N/A

Note: all percentages are cumulative. The 'boost sample' was drawn in October 2000 to complement the core sample drawn in August 2000, and to 'boost' the number of new and repeat claimants in the combined sample.

Source: Lessof *et al.* (2003).

4.2.6 Referrals and self-referrals from LPWFI and LPWFI extensions

Information about the participation and referral rates for LPWFIs is scattered across a number of programme evaluations, do not follow a uniform format of presentation (even within the same evaluation report) and are, for this reason, not easy to summarise. We present the key indicators in Table 4.8, and highlight the findings below.

Knight and Lissenburgh (2004) reported that about three-quarters of new and repeat claimants of IS among the lone parents eligible to take part in LPWFIs did, in fact, participate in the programme. This estimate appears to refer to the period of about 12 months after the start of a claim. The LPWFI participation for stock claimants was lower at 42 per cent. The later evaluation of the LPWFI extension of 2003 reported a LPWFI participation rate of 74 per cent for the combined sample of the newly eligible group of new and repeat claimants with children aged under three years and existing claimants with youngest children aged five to nine years (Knight and Thomas, 2006).

Knight *et al.* (2006) estimated the percentage of treatments that eligible lone parents underwent and which were either LPWFI only, NDLP only or a combination of both. Counting treatments is different from counting people as a person can

take part in more than one treatment. The data refer to the time until eligible lone parents exited IS, starting on 30 April 2001 in the case of existing claimants and observing all new and repeat claimants eligible during 2001/02. In Table 4.8, we show the participation rates based on the first treatment only and on multiple participation in LPWFI and NDLP. In both instances, the participation rates are similar and, indeed, close to the cumulative participation rates estimated by Knight and Lissenburgh (2004). LPWFI participation was around 72 per cent among flow claimants and 48 per cent among stock claimants. About one third of new and repeat claimants and one fifth of existing claimants took part in NDLP.

The most reliable estimate of the impact of LPWFI on joining NDLP was produced by Knight and Lissenburgh (2004), who used the D-i-D methodology to produce their estimate. Table 4.8 shows the estimates for the most reliable August-October 2001 cohort, suggesting a 15 percentage point increase in the participation in NDLP as a result of the LPWFIs. This was equivalent to an additionality rate of between 50 per cent and 75 per cent. Impact estimates for stock claimants were not available, nor were there referral impact estimates available that pertained to the LPWFI extensions.²¹

An alternative approach to observing referrals is to study the proportion of lone parents who participate in LPWFIs and, subsequently, enter NDLP, until they exit IS. Knight *et al.* (2006) did just that, recording the first treatment that lone parents received (typically LPWFI) and up to three subsequent treatments. Their data showed that 29 per cent of LPWFI-eligible new and repeat claimants participated in LPWFI and, following this, in NDLP. This meant that 40 per cent of those who participated in LPWFI then participated in NDLP. Looking at multiple subsequent treatments, the respective figures increased to 32 per cent of all eligible new and repeat claimants and 48 per cent of those among them who participated in LPWFI. Multiple treatments included lone parents who participated in one or more LPWFI before joining NDLP.

Among existing claimants, 15 per cent participated in one LPWFI and then joined NDLP (that is 31 per cent of all LPWFI participants among this group of lone parents). The rates increased to 16 per cent and 33 per cent if multiple LPWFI treatments prior to NDLP were also taken into account.

The rates estimated by Knight and Lissenburgh (2004) and Knight *et al.* (2006) are not directly comparable not only because the first estimates impact, whereas the second merely records gross figures. The two studies also use different bases for their estimates. Knight and Lissenburgh (2004) estimate the increase in the proportion of NDLP **participants** among LPWFI eligible lone parents (that is due to LPWFI); whereas Knight *et al.* (2006) calculate the proportion of **LPWFI-eligible lone parents** who go on to join NDLP.

²¹ Since late 2001, conversion rates from LPWFI to NDLP fell to around the seven per cent achieved within 13 weeks in 2006, before rising again to about nine per cent in early 2007 (Rogers, 2007).

Not everyone who was referred to NDLP from LPWFI took up NDLP, that is, had more than one (voluntary) meeting with the NDLP PA and/or engaged in some NDLP-supported or -initiated activity. Unfortunately, there was no information reported in the evaluations of the actual take-up of NDLP. However, Coleman and Rousseau (2003) noted that, between August 2001 and December 2002, 27 per cent of LPWFI eligible lone parents sampled for their longitudinal study had taken part in voluntary meetings after their initial PA meeting.²² Of these, 51 per cent reported two or more voluntary meetings with their PA, possibly suggesting active participation in NDLP (Coleman and Rousseau, 2003, Chart 3.1).

Self-referrals to NDLP can be estimated from data available in just one of the research reports. Knight *et al.* (2006) recorded the first-treatment destinations of lone parents eligible for the initial LPWFI. These data suggested that about three per cent of flow and five per cent of stock claimants participated in NDLP, without initially taking part in an LPWFI. If we assume that actual participation in NDLP requires at least two NDLP treatments, whatever they might entail, then the same source suggested that less than one per cent of LPWFI-eligible lone parents self-referred and participated in NDLP.

Two studies reported LPWFI participation and conversion rates for RMs. Coleman *et al.* (2003) note that 30 per cent of all those eligible for a review meeting had, in fact, taken part in one within 12 to 17 months of their sampling for the longitudinal study of LPWFI participants. Thomas and Griffith (2004) report that the conversion rate to NDLP was 18 per cent for all customers taking part in annual review meetings and 19 per cent for all customers taking part in six-monthly review meetings. The conversion rates were measured over the period between April 2001 and September 2003.

²² Administrative data suggested a higher percentage figure; according to these, 31 per cent of respondents had taken part in NDLP after the initial (mandatory) PA meeting.

Table 4.8 LPWFI and NDLP participation, referral and self-referral rates

Phases of LPWFI	LPWFI/NDLP participation rates	LPWFI referral rates to NDLP from LPWFI	Take up of NDLP by those referred via LPWFI	Self-referral to NDLP	Self-referral take-up rate of NDLP
Introduction April 2001	Flow				
	Knight and Lissenburgh, 2004: WFIPart: 74.5% (12 mths) NDPart: after...months 3 – 20.6% 6 – 24.0% 9 – 26.2% 12 – 28.6%	Knight and Lissenburgh, 2004 (August/October cohort): After...months after claim start: Additionality rate in (%) 3 – 15.1% (73.3%) 6 – 15.2% (63.3%) 9 – 14.8% (56.5%) 12 – 14.8 (51.7%) (all statistically significant at 5% level)		Knight <i>et al.</i> , 2006: 3% NDLP only (Table 2.2; first treatment only)	Knight <i>et al.</i> , 2006: 0 (derived from Table 2.3: on multiple treatments: all with at least two consecutive NDLP treatments, but no initial LPWFI)
	Knight <i>et al.</i> , 2006: first treatment only NDPart: 32% WFIPart: 72% Multiple treatments: NDPart: 35% WFIPart: 73%	Knight <i>et al.</i> , 2006: by type of first treatment: 29% of all NRC (or 40% of LPWFI participants) participated in LPWFI and then NDLP Multiple participation (up to four treatments): 32% of NRC (or 48% of LPWFI participants) participated in LPWFI (once or more) and then NDLP			

Continued

Table 4.8 Continued

Phases of LPWFI	LPWFI/NDLP participation rates	LPWFI referral rates to NDLP from LPWFI	Take up of NDLP by those referred via LPWFI	Self-referral to NDLP	Self-referral take-up rate of NDLP
Stock	<p>Knight and Lissenburgh, 2004: WFIpart: 42.1 % NDPart: within one year from sampling date: 14 %</p> <p>Knight <i>et al.</i>, 2006: First treatment only: NDPart: 20 % WFIpart: 48 % Multiple treatments: NDPart: 21 % WFIpart: 49 %</p>	<p>Knight <i>et al.</i>, 2006: By type of first treatment: 15% of all existing claimants (or 31 % of LPWFI participants) participated in LPWFI and then NDLP. Multiple treatments (up to 4 treatments): 16% of existing claimants (or 33% of LPWFI participants) participated in LPWFI (once or more) before joining NDLP</p>	<p>Coleman and Rousseau, 2003: NA (but states that stock more likely to take up than flow, p. 46)</p>	<p>Knight <i>et al.</i>, 2006: 5% NDLP only (Table 2.2; first treatment only)</p>	<p>Continued</p> <p>Knight <i>et al.</i>, 2006: 0.65 (derived from Table 2.3 on multiple treatments: all with at least two consecutive NDLP treatments, but no initial LPWFI)</p>
Extension April 2002	N/A		<p>Coleman and Rousseau, 2003: 51% of all LPs with further voluntary meetings (27% had more than 1 further meeting</p>		
Extension April 2003	<p>Knight and Thomas, 2006: WFIpart: 74 %</p>	<p>Coleman and Rousseau, 2003: 27% of LPWFI participants had further voluntary meeting with PA; within 12-17 months after sampling</p>			
Review meetings	<p>Combined Coleman and Rousseau, 2003: 30% of those eligible attended AR meetings</p>	<p>Thomas and Griffith, 2003 (conversion rate 04/01-09/03): annual 18%; 6-month 19%</p>			

Legend: WFIpart – LPWFI Participation Rate; NDPart – NDLP Participation Rate; NC – new claimants, RC – repeat claimants; NRC – new/repeat claimants; AR – annual review; NA – not available.

4.2.7 Sub-group estimates

Impact estimates for lone parent sub-groups, other than those that were reported as part of the LPWFI extension evaluations, were only available from the NDLP assessments. In Table 4.9, we summarise the impact estimates for benefit exit, estimated by Lessof *et al.* (2003) and Dolton and colleagues (in Knight *et al.*, 2006). In Table 4.10a, we summarise employment impact estimates.

Readers will recall that the reports by Lessof *et al.* and Dolton *et al.* used different methods for estimating impacts and also presented them differently. Most importantly, Lessof *et al.* presented cumulative impact data, whereas Dolton *et al.* used discrete, weekly estimates. As noted earlier, this causes the impact estimates of Lessof *et al.* to be higher than those estimated by Dolton *et al.*. Additionality also tended to be higher when the data from Lessof *et al.* was used. The same effects can be expected when comparing lone parent sub-groups. However, in this case, direct comparisons are not possible, because the two research teams chose to produce estimates for different sub-groups. Lessof *et al.* only reported sub-group impacts for six months after the closing of the participation window; Dolton *et al.* reported impacts for several months closer and further beyond that date; here, we show the impacts for the 9th, 24th and 48th month.

The impact estimates by Lessof *et al.* showed remarkable similarity across all sub-groups for which they were calculated. However, once the additionality rate is calculated, differences become apparent. Overall, NDLP had a greater effect, as expressed in terms of additionality rate, for younger lone parents with younger children, a longer benefit claim history and less employment experience. In other words, as previously concluded, NDLP appeared to have had the greatest impact on those lone parents – who volunteered to take part – with the greatest barriers to work.

Dolton and colleagues only showed impacts for two types of sub-groups: lone parents (a) with youngest children of various age ranges and (b) with varying IS claim duration. With respect to the youngest-child age ranges, there was again little variation in impacts, even when compared over time. Differences between lone parents with youngest children of different age ranges were more accentuated when we consider the additionality rate, which was highest for lone parents with the youngest children (zero to three years) and children aged five to 11. The greater variation, however, occurred over time, as the additionality rate, across all lone parent sub-groups, declined from around 50 per cent after nine months to around 30 per cent or lower after 48 months. Since impacts over this period remained comparatively stable, the decline in additionality was primarily due to comparison groups catching up with the programme groups.

Table 4.9 NDLP impacts on benefit exits – lone parent sub-groups

	Months since participation	Gross rate (%)	Impact rate (% points)	Additionality rate (%)
Lessof <i>et al.</i> (2003)				
< 25 years	6	34.3	26.5	77.3
25-34	6	42.7	29.4	68.8
35+	6	40.9	23.6	57.7
Duration of IS < 12 mths	6	44.5	25.1	56.4
Duration of IS 12+ mths	6	37.3	26.3	70.5
No O'Level passes at grade C+; None	6	36.6	25.0	68.3
No O'Level passes at grade C+; 1+	6	42.5	27.6	64.9
Work history: mainly worked	6	42.4	26.8	63.2
Work history: mainly did not work	6	35.4	25.7	72.6
Youngest child aged 0-3	6	37.2	26.5	71.2
Youngest child aged 4+	6	40.7	25.9	63.6
Dolton <i>et al.</i> in Knight <i>et al.</i> (2006)				
Youngest child aged 0-3	9	39.42	20.31	51.5
	24	46.34	16.08	34.7
	48	75.33	16.96	22.5
Youngest child aged 3-5	9	45.47	20.31	44.7
	24	54.73	19.31	35.3
	48	70.53	18.58	26.3
Youngest child aged 5-11	9	44.49	22.26	50.0
	24	56.60	16.18	28.6
	48	72.79	20.33	27.9
Youngest child aged 11-16	9	52.81	25.02	47.4
	24	61.03	18.86	30.9
	48	65.26	21.23	32.5
On IS for < 3 months	9	49.33	16.68	33.8
	24	59.88	16.12	26.9
	48	62.38	16.07	25.8
On IS for 3-6 months	9	49.65	14.04	28.3
	24	59.19	12.96	21.9
	48	60.60	13.17	21.7
On IS for 6-12 months	9	46.15	21.03	45.6
	24	63.58	24.74	38.9
	48	67.90	21.05	31.0

Continued

Table 4.9 Continued

	Months since participation	Gross rate (%)	Impact rate (% points)	Additionality rate (%)
On IS for 12-24 months	9	47.44	22.34	47.1
	24	50.59	9.20	18.2
	48	67.37	15.87	23.6
On IS for 24-36 months	9	41.58	18.76	45.1
	24	49.41	19.74	39.9
	48	74.10	18.12	24.4
On IS for 36+ months	9	46.32	30.62	66.1
	24	51.59	23.40	45.4
	48	78.05	25.79	33.0

The emerging picture is more complicated with respect to claim duration prior to NDLP participation. The evidence produced by Lessof *et al.* suggested similar impacts but our calculations show that lone parents with longer claim duration, that is, over 12 months, recorded a greater additionality rate. Dolton and colleagues' estimations showed similar impacts over time for most claim durations; the exceptions being 12 to 24 months and over 36 months of claiming prior to sampling. Impacts rose among those lone parents with a prior claim history over six to 12 months and for those with over 36 months of claims. The same was true for the additionality rate; however, it also fell back quickly with time, in line with those rates experienced by lone parents with shorter claim spells.

The emerging differences in additionality rates reflect not so much changing impact rates, but changes in gross impact rates and, therefore, above all changes in the rates pertaining to the comparison groups. Overall, the evidence from both studies is complementary and highlights the greater impact and additionality rate of NDLP among lone parents with greater barriers to work.

The employment entry impacts estimated by Lessof *et al.* for their lone parent sub-groups were only a little lower than the impacts estimated for benefit exit, but their additionality rate was more markedly lower. Moreover, looking at both, impacts and additionality rates, there was less consistent evidence – than there was for benefit exit – that NDLP, particularly, helped those least advantaged to gain employment (Table 4.10a). In particular, there was little difference in impacts or additionality rates for lone parents who had already received IS for up to 12 months, while the evidence for lone parents with and without work histories was mixed. On the one hand, impacts were greater for lone parents who had mainly worked between leaving school and first becoming pregnant. On the other hand, additionality rates were, in fact, lower for this group than for lone parents who had not mainly worked during this period. The clearest evidence that NDLP had, in particular, helped the more disadvantaged lone parents into work was provided by the impact and additionality statistics for lone parents with different levels of

educational achievement. Those lone parents who had no O-Level pass grades at C or better, were more likely to have benefited from the programme than lone parents with pass grades at these levels. The programme also had a larger effect on lone parents with younger children.

Table 4.10a NDLP impacts on employment entry, lone parent sub-groups, six months after participation

	Cumulative gross entry rate (%)	Cumulative impact on entry rate (% points)	Additionality rate (%)
< 25 years	37.7	21.5	57.0
25-34	45.3	26.3	58.0
35+	42.9	17.4	40.55
Duration of IS < 12 mths	48.2	26.1	54.1
Duration of IS 12+ mths	40.8	23.2	56.9
No O-Level passes at grade C+; None	40.6	25.7	63.3
No O-Level passes at grade C+; 1+	45.2	21.0	46.5
Work history1: mainly worked	48.1	25.6	53.2
Work history1: mainly did not work	35.9	20.7	57.7
Youngest child aged 0-3	39.3	24.8	63.1
Youngest child aged over 4	45.0	22.0	48.9

Note: 1 between leaving school and first becoming pregnant.

Source: Lessof *et al.* (2003).

The evidence from Dolton and colleagues' analyses was only a little clearer (Table 4.10b). It suggested generally lower impacts and lower additionality rates than the estimates produced by Lessof *et al.*, although a direct comparison is not possible because of differences in the sub-groups and time periods covered. In general, the data produced by Dolton *et al.* for their sub-groups followed the patterns already described in Table 4.2 for the entire lone parent population: namely, a steep decline in impacts and additionality rates nine months after participation in NDLP. However, there were two exceptions to this: First, lone parents with very recent IS claims (less than three months claiming before NDLP participation) experienced comparatively stable impact and additionality rates, nine, 24 and 36 months after participation in the programme.²³ Second, and very much different from the experience of other lone parents, programme impacts and additionality rates, in fact, increased substantively from nine to 24 months after participation for lone parents who had been claiming IS for between 12 and 24 months prior to the programme. Although dropping back in the following

²³ Dolton *et al.* also report impact estimates for 24 months after participation in NDLP. These are not reported here. The interested reader can find the data in Knight *et al.* (2006), Table 3.5, pp. 11-12.

period, both remained high and only a little below those for lone parents with the shortest pre-programme benefit claim histories.

Table 4.10b NDLP impacts on employment entry, lone parent sub-groups

	Months after participation	Cumulative gross entry rate (%)	Cumulative impact on entry rate (% points)	Additionality rate (%)
On IS for < 3 months	9	64.78	6.25	9.6
	24	64.69	5.52	8.5
	36	68	7.13	10.5
On IS for 3-6 months	9	62.83	7.43	11.8
	24	56.25	3.79	6.7
	36	61.98	1.06	1.7
On IS for 6-12 months	9	62.67	8.18	13.0
	24	58.4	0.69	1.2
	36	62.78	4.45	7.1
On IS for 12-24 months	9	58.13	5.69	3.3
	24	63.41	12.03	19.0
	36	63.28	6.3	10.0
On IS for 24-36 months	9	66.80	15.59	23.3
	24	55.05	0.37	0.7
	36	59.87	1.86	3.1
On IS for 36+ months	9	65.21	12.85	19.7
	24	58.17	3.23	5.5
	36	65.62	2.10	3.2
Youngest child aged 0-2	9	58.82	12.49	21.2
	24	52.83	4.71	8.9
	36	57.57	7.19	12.5
Youngest child aged 3-4	9	62.15	6.71	10.8
	24	59.23	4.81	8.1
	36	62.99	2.84	4.5
Youngest child aged 5-10	39	64.72	6.97	10.8
	924	59.36	1.75	2.9
	36	64.71	2.46	3.8
Youngest child aged 11-16	9	66.87	12.83	19.2
	24	62.79	5.16	8.2
	36	66.78	1.55	2.3

Source: Dolton *et al.* in Knight *et al.* (2006)

Separate impact estimates for lone parent sub-groups pertaining to LPWFIs were not available.

4.3 Grossed-up employment and benefit exit estimates

Table 4.11 converts the impact percentage rates for benefit exit as a result of NDLP or LPWFI reported in the previous sections into the absolute number of individuals positively affected by the two programmes. These conversions are reported for six, nine, 12 and 24 months since participation (NDLP), or since the reference date (stock claimants, LPWFI) or start of claim (flow claimants, LPWFI). It is important to recall that the gross and impact rates are cumulative. In the case of NDLP, the rates are estimated by Lessof *et al.* (2003) rather than by Dolton and colleagues, because the rates reported by Lessof *et al.* refer to IS rather than any benefit exits. They are, therefore, similar, and more comparable, to the LPWFI estimates, which also only investigated IS exits.

The absolute case numbers were derived by multiplying the sampled population (Column A) by the impact rate (Column C). Dividing the product by 100 results in the 'Impacted population' (Column D). In the case of NDLP, the estimation is based on the total sampled population of participants, not just the 42 per cent who were subsequently followed by the evaluators because they had returned the survey questionnaire **before** participating in NDLP.

It is apparent from the impact rates (and the previously reported additionality rates) that NDLP had a larger impact than LPWFI. This is reflected in the grossed-up data for the 'impacted population'. However, it must be borne in mind that the sample bases for the grossing-up process differ substantially between the NDLP and LPWFI programmes. Where the former rates were based on actual participants (6.5 per cent of the entire sample drawn in Lessof *et al.* (2003)), the latter rates were based on all LPWFI-eligible lone parents.²⁴ We also show the total number of NDLP-eligible lone parents in the original survey sample, which is closer to the sample sizes reported for the LPWFI evaluations.^{25 26}

The conversion suggests that, from among the lone parents eligible for NDLP in August and/or October 2000, an extra 1,000 lone parents left IS within the first year as a result of NDLP that otherwise would not have. Similarly, the introduction and subsequent extensions of LPWFIs helped between 70 and 240 new and repeat claimants (of the given cohort), and between 270 and 1,700 stock claimants (as at the key reference date) off IS within 12 months of participation. Review meetings

²⁴ As noted previously, about half of all stock and three-quarters of flow claimants participate in LPWFI.

²⁵ Note that the NDLP-eligible population was sampled in August and October; the LPWFI-eligible populations were sampled as at a given date or, in the case of flow claimants, as three- or five-month cohorts.

²⁶ Adjusting the NDLP impact to account for non-participation – assuming gross exit rates remain unchanged – yields a new rate of 1.6 per cent. This estimate is much closer to the LPWFI impact estimates and also in line with incremental estimates reported in Table 4.5.

assisted between 55 and 300 eligible lone parents off IS who would otherwise have remained claimants. This said, the statistical significance of the original and underlying impact rate estimates could only be confirmed for the LPWFI stock introduction (but not after six months) and its extension in 2001 and the LPWFI flow extension of 2003. The grossed-up data are subject to the same statistical uncertainty as the impact estimates upon which they are based. The statistical significance of RMs' incremental impact was not established.

Readers should recall that these figures are all cumulative and should not be summed across different periods after participation (NDLP), claim start or key reference dates (LPWFI). The grossed-up data, just as the impact rates, change for each indicated period, and can decrease, because they are affected by the behaviour of the comparison group during the observation period.

Applying the same grossing-up method to the employment impact rates estimates by Lessof *et al.* (2003) suggests that approximately 1,000 lone parents claiming IS in August and/or October 2000 moved into work following, and as a direct result of, their participation in NDLP.

Table 4.11 Grossed-up IS exit population – combined, stock and flow claimants (cumulative percentages/ percentage points)

Programme	Stock/flow (cohort)	A Sample population	After six months				After nine months			
			B Percentage gross IS exit rate	C Percentage impact	D 'Impacted population'	B Percentage gross IS exit rate	C Percentage impact	D 'Impacted population'		
NDLP 2000	Combined (August and October 2000)	4,245 (participants) [eligible: 69,851]	39.3	26.3	1116	46.3	26.2	1,112		
LPWFI Intro 2001	Flow (August-October 2001)	21,216	23.3	0.33	70	33.8	-0.13	-28		
LPWFI Ext 2002	Stock (at 30 April 2001) Flow (June-October 2002) Stock (at 1 April 2002)	57,359 14,729 84,743	11.7 22.4 8.9	0.47 0.47 1.04	269 69 881	18.8 N/A 14.4	1.13 N/A 1.66	648 N/A 1406,		
LPWFI Ext 2003	Flow (June-October)	13,513	24.0	1.8	243	N/A	N/A	N/A		
Review meetings	Flow – annual (June-October 2001) Flow – six-monthly (June-October 2002) Stock – annual (30 April 2001)	(youngest child 5.25-8) 13,457 (youngest child 3-5.25) 58,442 (youngest child 12-15.75)	N/A 1.45 N/A	N/A 1.35 N/A	182	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A		

Table 4.11 Continued

Programme	Stock/flow (cohort)	Stock/ flow	After 12 months				After 18 months			
			A Eligible population/ participants	B Percentage gross IS exit rate	C Percentage impact	D 'Impacted population'	B Percentage gross IS exit rate	C Percentage impact	D 'Impacted population'	
NDLP	Combined (August and October 2000)	Combined	4,245 (participants eligible: 69,851)	N/A	N/A	N/A	N/A	N/A	N/A	
LPWFI Intro	Flow (August- October 2001)	Flow	21,216	41.1	-0.16	-34	N/A	N/A	N/A	
	Stock (at 1 April 2001)	Stock	57,359	25.6	0.79	453	N/A	N/A	N/A	
LPWFI Ext 2002	Flow (June-October 2002)	Flow	14,729	N/A	N/A	N/A	N/A	N/A	N/A	
	Stock (at 1 April 2002)	Stock	84,743	17.5	1.98	1678	N/A	N/A	N/A	
LPWFI Ext 2003	Flow (June-October 2003)	Flow	13,513	N/A	N/A	N/A	N/A	N/A	N/A	
Review meetings (measured since initial LPWFI/ or reference date)	Flow – annual (June- October 2001)	Flow – annual	18,368 (youngest child 5.25-8)	41.2	0.3	55	52.7	0.3	55	
	Flow – six-monthly (June-October 2002)	Flow – six- monthly	13,457 (youngest child 3-5.25)	39.26	1.35	182	51.42	1.35	182	
	Stock – annual (30 April 2001)	Stock – annual	58,442 (youngest child 12- 15.75)	25.9	0.4	234	36.8	0.5	292	

Source: NDLP data from Lessof *et al.*, 2003; LPWFI introduction 2001 data from Knight and Lissenburgh, 2004; LPWFI extension 2002 data from Knight and Lissenburgh, 2005; LPWFI extension 2003 and RM data from Knight and Thomas, 2006.

Note: NDLP figures relate to total sample drawn (69,851) and all sampled also identified as participants (4,345), incl. participants not followed up in Lessof *et al.*, 2003. Review meetings impacts measured since initial LPWFI or reference date.

4.4 Tax credit impact estimates

In this section, we present the employment impact estimates of WFTCs for lone parents. We do not report the impact estimates of one particular study. The analyses by Leigh (2005) failed to find any evidence of statistically significant change in the employment of lone parents as the result of WFTC. It is difficult to determine precisely why Leigh's study should be the only one failing to detect an impact. However, it is likely that his focus on comparatively short periods before (March – August 1999) and after (December 1999 – May 2000) the introduction of WFTC might have concealed more substantive impacts. For instance, Brewer and Browne (2006, p. 13) argued that Leigh's approach would have failed to detect '*delayed changes to labour market participation*', or '*the possibility of an anticipation effect in 1998 or early 1999*'. Evidence of anticipation effects was typically mixed and, indeed, was dismissed by Brewer and Browne (2006) as unlikely over long time periods prior to policy implementation (here: 12 months). Francesconi and Van Der Klauww, however, reported evidence of an anticipation effect, in 1998, with respect to entries into employment of 16 or more hours per week.

Table 4.12 summarises the statistically significant estimates of the impact of WFTC on lone parents' employment, regardless of the hours worked. It identifies the authors and their studies, the time period covered by their impact estimation, the net gain in employment and the percentage point change in employment estimated, alongside the confidence intervals of the percentage point changes reported by the authors. We also estimated the additionality rates of the impacts, which are shown in the last column of the table. Because the estimates produced by Francesconi and Van Der Klauww relate to lone parents working at least 16 hours, their figures are presented further below in a section dealing specifically with 'WFTC-eligible employment'.

Table 4.12 Estimates of the impacts of WFTC on lone parent employment and employment rates (all employment)

Papers	Period	Employment change (N)	Employment rate change (% points)	Confidence interval (% points)		Additionality rate (%)
Blundell <i>et al.</i> (2004) ¹	2000-2003	50,000	3.38	Not reported	42.7	
Blundell <i>et al.</i> (2005)	2000-2002	60,000	3.60	2.62	4.58	51.3
Brewer <i>et al.</i> (2005) ¹	1999-2002	55,000	3.72	2.35	5.09	34.6
Gregg and Harkness (2003)	1998-2001	N/A	4.85	Not reported	N/A	

Note: ¹ Structural model.

The WFTC evaluations' estimates of the net contribution to employment for lone parents/mothers range from 50,000 to 60,000, over periods of two to three years. The estimates of the impact of WFTC on lone parents' employment rates range from 3.38 to 4.85 percentage points. The differences in impact estimates primarily reflect variations in the length and timing of the observation periods, and in the data sources used to derive the estimates. The Blundell *et al.* (2004) and (2005) studies stand out for their focus on the post-implementation phase of WFTC. The authors emphasised that their impact estimations were solely concerned with the cumulative effects²⁷ of WFTC but omitted the immediate impact of WFTC at the time of introduction. The remaining estimates, on the other hand, captured both types of effects, albeit not always during similarly long observation periods.

Another difference between the studies, as noted earlier, is that, in two instances, they relied on structural equation models, which estimated impacts based on constant lone parent groups, whereas the remaining studies used other population groups for comparison. The latter studies' estimates, therefore, might have captured additional policy effects that affected one, but not the other, population group. This may explain some of the differences in estimates, although the extent to which this may be the case cannot be determined as there are several other potentially confounding factors present at the same time (in particular, differences in the time periods covered).

Most studies acknowledged the confounding effect on WFTC impact estimates of changes in IS that coincided with the introduction of tax credits. Both Blundell *et al.* (2005) and Brewer *et al.* (2005) described these as having reduced lone parent employment. However, only Brewer *et al.* (2005) quantified this effect, which reduced the lone parent employment rates by 1.39 percentage points. Since this effect was included in their WFTC impact estimation, the net impact of WFTC on lone parent employment was, in fact, higher at $(3.72+1.39=)$ 5.11 percentage points. Overall, the true impact of WFTC was probably larger than reported in Table 4.12 – but only Brewer *et al.* (2005) estimated the size of the difference. Their grossed-up employment impacts for WFTC alone was 75,000 extra lone mothers in paid work between 1999 and 2002.

In general, the impact estimates were fairly close to each other and, as the confidence intervals shown in Table 4.12 demonstrate, ultimately compatible and reconcilable. The confidence intervals, where they were available, overlapped to a large extent and, with one exception, included the central impact estimates provided by the respective other authors. The overlap and inclusion of respectively other estimates indicates that the impact estimates were not statistically significantly different from one another.

²⁷ These include WFTC-entitled individuals' delayed response to WFTC incentives and their take-up and any subsequent changes in the generosity of WFTC and out-of-work benefits.

The impact estimates by Gregg and Harkness (2003), by contrast, differed from the other estimates, possibly because of the authors' efforts to control for pre-programme effects as far back as 1992, before estimating the D-i-D impacts for the period after 1998. Gregg and Harkness might also have picked up anticipation effects more so than other evaluations.²⁸

4.4.1 Additionality rates

As with NDLP and LPWFI, we calculated the rates of additionality of WFTC. To do so, we used the Labour Force Survey (LFS) to estimate total employment change over the various time periods covered by the WFTC studies.

These estimates are, by necessity, approximate. This is for two reasons: First, the LFS figures are annualised, whereas the WFTC evaluations reported estimates with variable start and end points, based on monthly figures. Second, the WFTC studies offered various definitions of employment in relation to the weekly hours worked. These were not necessarily consistent with the ILO definition of employment that applies to the LFS but could not have been reconciled within the remit of this study. Thus, readers should treat the additionality rate estimates with some caution.

Overall, the additionality rates suggest that between a third and a half of the employment increase among lone parents was the direct result of the introduction of WFTC. Since Gregg and Harkness (2003) did not provide an estimate of the absolute increase in lone parents in employment, we did not calculate an additionality rate for their estimation. However, in their report, the authors do conclude that, for the period 1992 – 2002, five percentage points of the total 11 percentage point increase in the lone parent employment rate (or 45 per cent) were the result of policy reform, most of which occurred after 1998 and, thus, coincided with the introduction of WFTC.

4.4.2 WFTC impact on WFTC-eligible employment

Whereas in Table 4.12, we summarised the principal impact estimates of the impacts of WFTC on lone parent employment in general, Francesconi and Van Der Klaauw (2004) and Gregg and Harkness (2003) also provided estimates of the impact on lone parent employment of at least 16 hours per week.²⁹ Table 4.13 shows that these impact estimates were considerably higher than the comparable impact estimates for any employment; both estimates suggesting an increase in the rate of lone parents working 16 or more hours by around seven percentage points.

²⁸ Francesconi and Van der Klaauw (2004) criticised Gregg and Harkness' use of a 1992-1998 pre-programme period because it was longer than the observed post-programme period, 1998-2002, which they saw as potentially distorting results.

²⁹ Brewer *et al.* (2005) also provided impact estimates for 'part-time' employment, but defined this as 10, 19 or 26 hours per week, that is, including hours below the WFTC eligibility criterion.

The estimate by Francesconi and Van Der Klauww (2004) took account of lone parents reacting to the incentives of WFTC even before their introduction (the anticipation effect). This substantially increased the overall post-1998 implementation impact estimate. Without taking account of this anticipation effect, their impact estimate would have been much lower, at 4.7 percentage points and, thus, much closer to the all-employment impact estimates reported in Table 4.12.

The estimates of nominal employment change suggest that between 120,000 and 135,000 additional lone parents were in employment as a result of WFTC at the end of the observation periods. The estimate of 135,000 additional parents by Francesconi and Van Der Klauww was based on approximately 1.5 million lone-mother households in the UK in 2001. It appears to assume that nine per cent³⁰ of this total entered paid work as a result of WFTC. Nine per cent was the authors' estimated first-year effect, that is, the WFTC impact for 1999. Over the period from 1999 to 2001, the authors estimated that WFTC had helped an additional seven per cent of lone parents into paid work. This would have been equivalent to 105,000 lone parents.

Francesconi and Van Der Klaauw's estimate of 135,000 additional lone parents in paid work of 16 or more hours was, in fact, higher than the national employment change recorded by the LFS for the period between 1999 and 2001, which we used as a uniform, best-fit denominator for the additionality calculations. Our estimated additionality rate based on this figure was 142 per cent. It would have been 110 per cent had the seven-percentage point estimate of the employment rate change between 1999 and 2001 been used as the basis of this calculation. Francesconi and Van Der Klaauw acknowledged that their impact estimates were higher than those reported in other studies, including those reviewed here. They explained this with reference to their using different data (panel data), the inclusion of anticipation effects and their inclusion of responses due to the reduction in childcare costs (as a result of the Childcare Tax Credit element of WFTC).

Table 4.13 WFTC employment impact estimates (16 or more hours per week)

Papers	Period	Employment change (N)	Employment rate change (% points)	Additionality rate (%)
Francesconi and Van De Klauuw (2004)	1999-2001	135,000	7	142.1
Gregg and Harkness (2003)	1998-2001	120,000	7.20	52.9

³⁰ Nine per cent of 1.5m equates to 135,000.

4.4.3 Variations in impacts by lone parent sub-group

Three studies provided estimates of the net WFTC impact for lone parents with youngest children of different ages. Blundell *et al.* (2005), who had reported an overall impact of WFTC on lone parent employment (of any number of hours) of about 3.6 percentage points between 2000 and 2002, also found evidence of a statistically significant increase of 4.5 percentage points among lone parents with children under the age of 11. However, there appeared to be no statistically significant impact for lone parents with children older than 11 years. Brewer *et al.* (2005) came to similar results, but were able to provide a more detail breakdown by children's ages. They found that impacts were largest for lone parents with children aged between three and four years, or between five and ten years, and smallest for lone parents with children aged between zero and two, and over 11 years. They also found that impacts were smaller for lone parents with one child than for lone parents with more children. This was true for both, the WFTC-only and the impact estimate that combined tax and benefit changes. All estimates related to any type of employment, i.e. regardless of the hours worked.

In contrast, Francesconi and Van Der Klaauw (2004) estimated the impact of WFTC reforms on the probability of lone parents working 16 or more hours per week. They found the greatest increase in employment probabilities among lone mothers with one child aged zero to four years (+12 percentage points) or one child aged five to ten years (+8.5 percentage points). Single mothers with a child aged 11-18 were only 4.5 percentage points more likely to work 16 or more hours per week as a result of WFTC. Their findings were, thus, broadly in line with the estimates produced by Blundell *et al.* (2005) and Brewer *et al.* (2005), although the use of different age categories renders a direct comparison impossible. Francesconi and Van Der Klaauw found no consistent evidence of variations in statistically significant impacts by lone parents' number of children.

5 Conclusions

This report has brought together the key findings from a series of New Deal for Lone Parents (NDLP), Lone Parent Work Focused Interview (LPWFI) and Working Families' Tax Credit (WFTC) evaluations and impact assessments. Their findings were summarised and reviewed alongside the methods employed by the evaluators. Overall, the review found a high level of consistency across the evaluations, both in their adopted methods and their estimated impacts. This applied to both the NDLP and LPWFI evaluations and the tax credit impact assessments.

In this chapter, the key findings from the review are briefly summarised. We also discuss what the evaluations tell us about the respective policies' contributions to growing labour market participation of lone parents that has occurred since the late 1990s. We conclude with a note on the gaps that remain in knowledge and understanding of the policies' effectiveness and the comparability of evaluation evidence.

5.1 Summary

5.1.1 NDLP and LPWFI

The initial NDLP evaluation (Lessof *et al.*, 2003) found that NDLP contributed substantively to both increased exit from Income Support (IS) and increased entry into work among NDLP participants. After three to nine months, an extra 25 per cent to 26 per cent of lone parents who had participated in NDLP had moved off IS. These additional benefit exits accounted for between 56 per cent (after nine months) and 80 per cent (after three months) of all lone parents moving off IS during this time. The initial evidence was confirmed in subsequent studies (Dolton *et al.*, 2006; and Dolton *et al.*, in Knight *et al.*, 2006). Although the initial and the later analyses used different analysis methods and outcome definitions, their impact estimates of IS exits were compatible.

Lessof *et al.* (2003) and Dolton *et al.* (in Knight *et al.*, 2006) produced different estimates of employment entry (Lessof *et al.*) and sustained employment (Dolton *et al.*), which were not directly comparable. They were also based on different sample groups, which further limited comparability. Both studies, however, found

that NDLP had a positive impact on lone parent employment, but that additionality rates declined with time.

Unlike the NDLP evaluations, LPWFI evaluations investigated the programme's impact on lone parents' exits from IS, but not their entry into work. The evaluations typically found statistically significant impacts for existing (or stock) claimants in the region of one and two percentage points, which was equivalent to six per cent to 21 per cent additionality rate, depending on the programme phase. Researchers faced numerous challenges in meeting the conditions for robust evaluations of LPWFI, in particular, the steady expansion of the programme which limited the selection of comparison groups and resulted in shorter periods during which impacts could be observed.

Estimations of the incremental impacts of LPWFIs and NDLP retained a high level of imprecision. However, the combined evidence suggests a greater impact of NDLP than LPWFI, although LPWFI played an important role in referring lone parents to NDLP, certainly in the early months after their introduction (Knight and Lissenburgh, 2004). The introduction of annual RMs was found to add a temporary impetus to the exits from IS, although this was not the case for six-monthly meetings (Knight and Thomas, 2006).

In the early 2000s, NDLP was most effective in assisting more disadvantaged lone parents to move off IS or into employment. The lone parents likely to benefit most from NDLP tended to be younger, have younger children, have had less employment experience and had been in receipt of IS for longer. Lone parents with few or no O-Level grades were particularly likely to move into work as a result of NDLP.

Although no separate impact assessments by specific claimant characteristics were available for the LPWFI introduction and expansions, these initiatives were initially more effective for existing than new and repeat claimants of IS. Only the 2003 extension of LPWFI – which targeted lone parents with very young children – appeared to have had a statistically significant positive impact on the IS exits of new and repeat claimants. The overall impression is that, across the three phases that were evaluated, LPWFI appeared to be more likely to assist claimants who were further removed from the labour market (existing claimants) or faced greater barriers to job entry (lone parents with very young children). LPWFI, like NDLP, may thus, have provided more support to those in greater need.³¹

The self-referral rate onto NDLP was estimated to be around three per cent of new and repeat claimants eligible for the LPWFI introduction in 2001 and about five per cent of stock claimants eligible at that time. Although difficult to estimate

³¹ This said, many existing claimants would be able to (re-)enter the labour market because their children had reached an age that allowed the parent to take up paid work, thus removing one important barrier to the labour market participation of lone parents.

precisely, this was around one-third of stock claimants joining NDLP and between one-seventh and one-tenth of new and repeat claimants joining NDLP. In this light, LPWFIs maintain an important role in referring lone parents to NDLP, which, as the incremental impact analysis suggested, was by far the more effective of the two policy instruments.³²

5.1.2 Working Families' Tax Credit

The effect of WFTC had been assessed in six separate studies, including one that found no evidence of a statistically significant impact. Studies that confirmed statistically significant impacts of WFTC came to very similar and compatible conclusions. Estimates of the increases in the employment and employment rates of lone parents, regardless of hours worked, as a result of WFTC ranged from 3.4 percentage points to 4.8 percentage points, for variable periods of time between 1998 and 2001. Employment increases as a direct result of WFTC were similarly estimated to range between 50,000 and 60,000 lone parents, depending on the estimation method and on the data used for the estimation.

Once confidence values of these estimates are taken into account, estimates were typically compatible, although one study produced unusually high impact estimates. Only one study specifically factored out the offsetting effect of changes to IS, which meant that most WFTC impact estimates were, in fact, underestimated. Estimates of WFTC impacts (including any offsetting effects) on lone parents working 16 or more hours per week were higher at around seven percentage points. Lone parents with children aged between two and 11 years were most likely to have benefited from WFTC.

5.2 Preferred estimates

Table 5.1 draws together the most robust and preferred IS exit impact estimates from the various studies that have been reviewed. It shows NDLP impacts grossed up to reflect their effect on the total eligible population, which increases the comparability of NDLP impact estimates with LPWFI impact estimates. The principal impact of NDLP was to increase exits from IS among all lone parents by about two percentage points, or by over one-quarter among lone parents participating in the programme.

Analysis reported earlier revealed that the impact of LPWFI was most likely marginal, if present at all, and IS exits were most attributable to NDLP. The size of any LPWFI impact may be gauged tentatively with reference to the evaluations of LPWFI review meetings. These suggested a small extra increase in IS exits following these

³² The importance of LPWFI as the agent for referrals to NDLP might be somewhat exaggerated for new and repeat claimants, as many would be required to attend their mandatory Personal Adviser (PA) meeting before they may have had an opportunity to arrange a meeting with the NDLP adviser.

meetings, amounting to perhaps a fifth of the aggregate impact of NDLP, LPWFI and LPWFI RMs.

Throughout Table 5.1, impacts are shown for the longer of the reported observation periods. This is because we believe that the barriers to work encountered by lone parents on IS are typically sufficiently large to take more than a short adjustment period (the first NDLP evaluation assumed three months) to overcome these. This appears to be confirmed by the evaluation evidence, as statistically significant impacts for LPWFI were only found for periods beyond six months after eligibility (however, as noted above, this may have largely measured NDLP effects). Moreover, taking a long-term view increases opportunities to observe the extent to which (initial) impacts are, in fact, sustained.

For the NDLP evidence, the preferred impact estimates draw on those produced by Dolton *et al.*, mainly because these estimates took account of repeat participation, i.e. lone parents returning to benefit after a short absence following participation in NDLP (row labelled: 'Net of repeat participation'). The Dolton estimates also benefit from a stricter definition of benefit exit, including Incapacity Benefit (IB) and Jobseeker's Allowance (JSA) as well as IS. In applying this definition, a greater emphasis is again placed on the sustainability of benefit exits over time. However, it should be borne in mind that this definition can easily overlook the risk of lone parents 'cycling' between benefit and (low paid) work, and the importance of, in particular, JSA as a temporary source of non-work income.

Our preferred employment impact is also that estimated by Dolton *et al.* in Knight *et al.* (2006) because it, again, accounts for lone parents moving in and out of employment at different times during the observation period. Over time, Dolton *et al.*'s estimates suggest a declining impact of NDLP on lone parent employment (Table 5.2).

Table 5.1 NDLP and LPWFI impacts on benefit exit – all lone parents (on IS)

	Months after participation/ eligibility	Gross exit rate	Impact on exit rate	Additionality rate (%)
NDLP (flow + stock)				
First exits only				
	9	46.3	26.2	56.59
Grossed up to eligible population				
	9		2	
Net of repeat participation				
	9	46.09	22.24	48.25
	24	54.16	18.3	33.79
Grossed up to eligible population				
	9		1.7	
	24		1.4	
LPWFI				
Introduction 2001				
Flow (August-October cohort)				
	9	33.8	-0.13	-0.4
	12	41.1	-0.16	-0.4
Stock				
	9	18.77	1.13**	6.0
	12	25.60	0.79**	3.1
Extension 2002				
Flow (June-October cohort)				
	6	22.4	0.47	2.1
Stock				
	9	14.4	1.66**	11.5
	12	17.5	1.98**	11.3
Extension 2003				
Flow (June-October cohort)				
	6	24.0	1.8**	7.5
LPWFI RMs				
Flow – annual				
Preferred incremental impact	15-18		0.3	
Stock – annual				
Preferred incremental impact	15-19		0.5	

NDLP gross rates refer to participants; LPWFI gross rates to LPWFI eligibles.

Start of observation for flow claimants = start of claim, for stock claimants = reference date when sampled (last working day in April of relevant year).

** statistical significance at 5%; * at 10%.

Sources: Knight and Thomas, 2006; Dolton *et al.*, 2006, Lessof *et al.*, 2003; Knight *et al.*, 2006.

Table 5.2 NDLP impacts on employment and employment entry – all lone parents (on IS)

Phases of NDLP/ LPWFI	Months since participation	Gross rate (%)	Impact rate (% points)	Impact rate grossed up to eligible population (% points)
Employment entry	Lessof <i>et al.</i> , 2003 9	49.4	24.2	1.8
Employment	Dolton <i>et al.</i> , in Knight <i>et al.</i> , 2006 9	63.37	10.2	0.8
	24	58.78	4.25	0.3
	36	63.2	3.45	0.25

Note: Gross rates refer to participants.

5.3 How much did policy contribute to greater labour market participation among lone parents?

Between the years 2000 and 2006, the lone parent population in work increased by approximately 176,000 or 21.2 per cent, whereas the number of lone parents in receipt of IS decreased by 132,000, or 14.5 per cent (Table 5.3). As noted earlier, it was not possible to gross up impact estimates to derive estimates of the actual number of lone parents assisted by NDLP or LPWFI into work and off IS over time. A firm judgement as to the role of either policy to changing lone parents' economic and social position is, for this reason, not possible. In contrast, the previous chapter has shown a number of estimates of the net impact of WFTC, which suggest that the policy has made a substantive contribution to the growth in lone parent employment. This was confirmed by the additionality estimates in Table 4.11. None of the WFTC studies, however, sought to estimate the impact of WFTC on moving lone parents off IS.

Table 5.3 Lone parent economic status and IS caseload, 2000, 2006

	2000	2006	Change (N)	Change (%)
Population (millions)	1.63	1.78	+0.15	+9.2
Employed (000s)	832	1,008	+176	+21.2
Unemployed (000s)	126	112	-14	-11.1
Inactive (000s)	668	659	-9	-1.3
Recipients of IS (000s)	909	777	-132	-14.5

Source: Piper and Shah (2006), DWP (2002).

The evidence extracted from the NDLP and LPWFI evaluations is not strictly generalisable and its impacts cannot be projected into the future. This is because it was based on single 'snapshot' evaluations that followed samples of LPWFI-eligible and NDLP-participating lone parent populations over time, but never monitored more than a fraction of lone parents that, as time and policies progressed, became increasingly non-representative of the existing lone parent population. However, it is obvious from Section 4.2 and Table 4.11 that grossed-up estimates of the 'impacted population' can only present a fraction of the aggregate change in the number of lone parents in work or receiving IS. The driving force behind the growth of lone parents in employment may, in fact, have been the sharp increase in lone parents between 2000 and 2006 (+150,000), in particular those with higher qualifications and with, on average, older children (compare Piper and Shah, 2007; Gregg *et al.*, 2006).³³

Thus, the main achievement of NDLP has been to assist especially those lone parents who would have been least likely to make the move into work without the kind of support provided by NDLP (see also Gregg *et al.*, 2006, Table 5.2). Estimations of the relative contribution of NDLP and LPWFI on gross changes in employment or benefit rates may, for this reason, more appropriately be made with lone parents of similar socio-economic characteristics rather than based on national aggregate statistics.

The additionality rate estimates for WFTC suggest a positive and far-reaching effect of tax credits on the employment of lone parents.³⁴ However, whereas the WFTC impact assessments often provided breakdowns of impacts by the age of children, they did not further explore the characteristics of lone parents most or least likely to benefit from WFTC.

5.4 Note on information gaps and comparability of evidence

The Reconciliation Project has demonstrated that there is a substantial and impressive volume of information and data scrutinising the effectiveness of NDLP and LPWFI. However, the review also discovered that, whereas impact estimates of

³³ Further evidence of improved economic and labour market position of lone parents is available from worklessness statistics provided by the Office for National Statistics (ONS – online, downloaded June 2007). These show that the number of workless working-age lone parent households with dependent children declined by four per cent (or 29,000 individuals) between autumn 2000 and spring 2006 and, thus, faster than the average across all workless households in the UK (-3.5 per cent; 107,000).

³⁴ Brewer *et al.* (2005) calculated that, across the entire WFTC-eligible population, WFTC caused the number of workless families with children to decrease by 99,000 between 1999 and 2002.

NDLP, LPWFIs and WFTCs were generally reconcilable, they also were sometimes patchy and incomplete. There was also little consistency in the types of lone parent populations for which sub-group impact estimates were produced, if they were produced at all. Employment impact estimates, in particular, were only available for NDLP, but not LPWFIs.

Methodological constraints, in particular those resulting from the steady expansion of LPWFI, prevented evaluations from presenting a complete picture of the effectiveness of the interventions on all eligible lone parents, throughout the years. Furthermore, the re-analysis of the original NDLP data demonstrated that the use of different outcome indicators and different measurement methods can yield rather different results. Importantly, it could be argued that these results were not only different but also conceptually and methodologically stronger, in particular as they addressed the issue of repeat participation, i.e. the 'cycling' of lone parents between benefit receipt and employment (see also Evans *et al.*, 2004). They also benefited from using a larger sample of programme participants.

Arguably, the most substantial gap in our knowledge of the effectiveness of NDLP and LPWFI, however, is the fact that the evaluation evidence may now be dated. This is true particularly for NDLP. Since both programmes were evaluated, the composition of lone parents in Britain has changed (Piper and Shah, 2006), although this may be less true for lone parents in receipt of IS, who remain the principal client group for NDLP and LPWFI. In the light of shifts in the main characteristics of lone parents, in particular with respect to those characteristics that are known to affect NDLP and LPWFI impacts, there must be some uncertainty as to the relevance of the early evaluations and their lessons to policy-making today.

Like NDLP and LPWFI evaluations, few WFTC studies produced impact estimates that differentiated by lone parent sub-groups or, where such impacts were provided, they varied in format. This said, since these studies were rarely commissioned by the same organisation, such co-ordination or indeed, uniformity of presentation should perhaps not be expected. Finally, only two of the five studies reviewed here estimated the impacts on lone parent employment at and beyond the minimum weekly hours (16+) that would have entitled lone parents to WFTC.

Drawing specifically on the review of NDLP and LPWFI evaluations and reflecting our selection of preferred estimates, recommendations for further improving the implementation, robustness and comparability of future quantitative welfare-to-work policy evaluations are:

- As far as possible, account for **repeat participation** affecting outcome or impact estimates and, thus, explore the extent to which policy effects prove to be sustained over time; this should help improve and innovate policy, as the introduction of the Employment Retention and Advancement Demonstration project illustrates.

- Consider the various avenues that benefit recipients may take when exiting benefit, as not all benefit exits typically result from entry into paid work; this implies observing exits to **alternative benefits**, bearing in mind that some benefits can be claimed while in paid work – and may effectively support the transition in employment. In practice, this means recording employment entry as one of the outcome measures.
- Evaluations should make it clear how their chosen **method** might affect the impact estimates of their analysis. The NDLP evaluations highlighted how drawing on even slightly different samples can alter the results of impact analyses, by including populations with different levels of ‘work-readiness’. In particular, users of Propensity Score Matching (PSM) may want to comment on whether their matched population reflects the total target population and how the exclusion of some of the target population might affect impact estimates.
- Select a **common baseline population**, which allows comparisons between them where this is likely to be required. Where common baseline populations cannot be selected, measures to adjust evaluation statistics retrospectively to approximate a common base should be suggested, if not applied. For instance, the relationship between participant and eligible populations should be made very clear. Likewise, the implications of evaluating **voluntary or mandatory** programmes should be made explicit.
- Co-ordinate policy development and evaluation, to ensure that **policy innovation or extensions** do not coincide with, or impede, the evaluation of existing programmes, as this may lead to inconclusive evaluation results.
- Avoid situations, such as those brought about by policy extensions, that limit evaluations to (increasingly) **non-representative sub-groups** of a target population, unless there is a strong case for assuming that policy impacts might be similar; in particular, evaluations should be able to capture seasonal factors that might affect outcomes.

Some of the problems encountered in the course of the LPWFI evaluations in identifying suitable comparison groups resulted directly from the national roll-out of the programme. As all lone parents meeting the specified characteristics became eligible to the programme at the same time, comparison groups with identical characteristics, required to measure impacts reliably, were not readily available. A partial roll-out would have allowed the programme’s impact to be measured using experimental or quasi-experimental methods (compare Purdon, 2002). The use of random assignment would have very likely produced more robust impact estimates.

References

DWP (2002) Income Support Quarterly Statistical Enquiry May 2002. Newcastle Upon Tyne: Department for Work and Pensions.

DWP (2007) January 2007 LP WFI Analysis: Lone Parent Work Focused Interviews Performance Analysis. Sheffield: Department for Work and Pensions.

Evans, M., Harkness, S. and Arigoni Ortiz, R. (2004) Lone parents cycling between work and benefits. DWP Research Report No. 217. Leeds: Corporate Document Services.

Piper, J. and Shah, N. (2006) 2006 Lone Parent Factsheet. Family, Poverty and Work Division (FPWD3), Department for Work and Pensions.

Purdon, S. (2002) Estimating the Impact of Labour Market Programmes. DWP Research Working Paper No. 3. London: Department for Work and Pensions.

Rogers, S. (2007) National Lone Parent Work Focused Interviews performance analysis 2007. Department for Work and Pensions.

NDLP/LPWFI

Literature included in the review

Coleman, N. and Rousseau, N. (2003) *National Evaluation of LP WFI Meetings: Findings from a longitudinal survey of clients*, DWP Research Report W172.

Dolton, P., Azevedo, J.P. and Smith, J.(2006) *The econometric evaluation of the New Deal for Lone Parents*, Department for Work and Pensions, DWP Research Report 356. Leeds: Corporate Document Services.

Evans M., Eyre, J., Millar, J. and Sarre, S. (2003) *New Deal for Lone Parents: Second Synthesis Report of the National Evaluation*, DWP Research Report W163.

Knight, G. and Lissenburgh, S. (2004) *Evaluation of lone parent work focused interviews: final findings from administrative data*, Department for Work and Pensions Research report W182.

Knight, G. and Lissenburgh, S. (2005) *Evaluation of the extension to Lone Parent Work Focused Interviews eligibility: administrative data analyses*. DWP Research Report 237. Leeds: Corporate Document Services.

Knight, G., Speckesser, S., Smith, J., Dolton, P. and Azevedo, J.P. (2006) *Lone Parents Work Focused Interviews/New Deal for Lone Parents: combined evaluation and further net impacts*, Department for Work and Pensions, DWP Research Report 368. Leeds: Corporate Document Services.

Knight, G. and Thomas, A. (2006) *LPWFIs and review meetings administrative data analyses and qualitative evidence*, DWP Research Report No 315. Leeds: Corporate Document Services.

Lessof, C., Miller, M., Phillips, M., Pickering, K., Purdon, S. and Hales, J. (2003) *New Deal for Lone Parents Evaluation: Findings from the Quantitative Survey*, National Centre for Social Research, DWP Report WAE147.

Thomas, A. and Griffiths, R. (2004) *Integrated Findings from the Evaluation of the First 18 months of LP WFIs*, DWP Research Report No W184.

Literature not included in the review

Knight, G. and White, M. (2003) *Evaluation of lone parent adviser meetings: interim findings from administrative data analysis*. Department for Work and Pensions Research Report W159.

Thomas, A. and Jones, G. (2003) *LPWFI Meetings: Qualitative Evaluation and Case Studies of Delivery of 6 monthly reviews*, DWP Research Report No W178.

Thomas, A. and Griffiths, R. (2003) *Evaluation of the first 18 months of LP WFI Meetings: Findings from the Qualitative Research*, DWP Research Report W166.

Thomas, A. and Jones, G. (2006) *Work Focused Interviews and lone parent initiatives: further analysis of policies and pilots*, DWP Research Report No 319. Leeds: Corporate Document Services.

Tax credits

Literature included in review

Blundell, R., Brewer, M. and Shephard, A. (2005) *Evaluating the labour market impact of Working Families' Tax Credit using difference-in-differences*. London: HM Revenue & Customs.

Blundell, R., Brewer, M. and Shephard, A. (2004) *The impact of tax and benefit changes between April 2000 and April 2003 on parents' labour supply*. Briefing Note No. 52. London: Institute for Fiscal Studies.

Brewer, M., Duncan, A., Shephard, A. and Suarez, M.J. (2005) Did Working Families' Tax Credit work? The final evaluation of the impact of in-work support on parents' labour supply and take-up behaviour in the UK. London: HM Revenue & Customs.

Brewer, M. and Browne, J. (2006) The effects of Working Families' Tax Credit on labour market participation. Briefing note No. 69. London: Institute for Fiscal Studies.

Francesconi, M. and Van der Klaauw, W. (2004) The Consequences of 'In-Work' Benefit Reform in Britain: New Evidence from Panel Data. *Working Papers of the Institute for Social and Economic Research*, Paper 2004-13. Colchester: University of Essex.

Gregg, P. and Harkness, S. (2003) *Welfare Reform and Lone Parents Employment in the UK*, CMPO Working Paper Series No. 03/072. Bristol: Centre for Market and Public Organisation (Bristol University).

Gregg P., Harkness, S. and Macmillan, L. (2006) Welfare to work policies and child poverty: *A review of issues relating to the labour market and economy*. York: Joseph Rowntree Foundation.

Leigh, A. (2005) Earned Income Tax Credits and Labor Supply: New Evidence from a British Natural Experiment. Australian National University, Economics Division (mimeo).

Literature not included in the review

Brewer, M. (2003) The New Tax Credits, IFS Briefing Notes BN35. London: Institute for Fiscal Studies.

Brewer, M. and Shaw, J. (2006) *How Many Lone Parents Are Receiving Tax credits?* IFS Briefing Notes No. 70. London: Institute for Fiscal Studies

Chzhen, Y. and Middleton, S. (2007) The impact of Tax Credits on mothers' employment. York: Joseph Rowntree Foundation.

