



ANALYSIS AND
RESEARCH

Working Families' Tax Credit

Estimates of Take-up rates

in 2000-01

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Summary

Take-up rates by caseload

The estimated take-up rates of the Working Families' Tax Credit (WFTC) in 2000-01 are:

- The overall take up rate for all families was 62 to 65 percent.
- Among families that would have been entitled to indexed Family Credit¹ (FC), the take-up rate was higher, at 75 to 81 per cent.

This compares to published take-up rates for FC of 66 to 70 per cent for 1998-99 (its final year), and 57 per cent for April 1988 to December 1989 (which includes its first full year).

Growth in the total number of recipients of WFTC

The number of recipients has grown steadily since the start of 2000-01:

- Even by the second half of 2000-01, the take-up rate had reached 65 to 70 per cent
- By May 2002 there were more than 1.3 million families receiving WFTC, which was:
 - 17 per cent higher than the average for 2000-01, and
 - over 500 thousand higher than the number receiving FC at its June 1999 peak.

Take-up rates by expenditure

Take-up rates tend to be higher for families in most need, and who are entitled to larger awards, so the take-up rates by expenditure are higher than those by caseload. The estimates for 2000-01 are:

- The overall take-up rate for all families was 73 to 78 per cent.
- Among families that would have been entitled to indexed FC¹, the take-up rate was higher, at 78 to 84 per cent.

This compares to published take-up rates for FC of 73 to 79 per cent for 1998-99 (its final year), and 67 per cent for April 1988 to December 1989.

The take-up rates are presented as ranges to reflect the sampling uncertainty in the element derived from sample survey data. There are other significant uncertainties in the assumptions made in the calculations, which are discussed in Annex 1.

¹ That is, had Working Families' Tax Credit not been introduced, and had the 1999-00 Family Credit rates and threshold been indexed with inflation to 2000-01.

Introduction

Working Families' Tax Credit (WFTC) is a tax credit available to families with at least one adult in remunerative work for at least 16 hours per week, and who are responsible for at least one dependent child (under 16, or under 19 if in full time education up to A-level or equivalent standard). It replaced Family Credit (FC), which was a social security benefit, in October 1999.

The Department of Social Security published estimated take-up rates for FC for years up to 1998-99. No take-up rates were published for 1999-00, the transition year between FC and WFTC. The figures presented here are therefore the first for WFTC that have been published by the Government.

Definition and coverage of the estimates

There are two measures of the take-up rate. The caseload measure is the number of WFTC recipients, averaged over the year, divided by the average number who would receive WFTC if every family took up its entitlement for the full period of their entitlement. The expenditure measure is the total amount of tax credit received in the year divided by the total amount that would be received if every family took up its entitlement for the full period of their entitlement.

The take-up rates presented here are derived from:

- **WFTC administrative data**, which yields numbers of families **receiving WFTC** ("recipients");
- the **Family Resources Survey (FRS)**, which yields estimates of the numbers of families **currently entitled to WFTC but not in receipt** ("currently entitled non-recipients").

In addition, some non-recipient families can be **entitled** even though they are not **currently entitled** (see the box). Various assumptions are made to estimate their numbers, which are added to the estimates derived from the FRS to arrive at estimates of the numbers of all "entitled non-recipients".

The estimates are limited by the coverage of, and the detail and quality of the data collected by, the FRS. They cover Great Britain (excluding Northern Ireland); they exclude families with self-employed workers; and they include families with children entitled to, or receiving, the Disabled Person's Tax Credit (DPTC). The figures of WFTC recipients appearing throughout this publication follow this definition. They therefore differ from those published in the WFTC Quarterly Enquiries.

Annex 1 describes how the estimates have been produced, and their coverage, in more detail.

"Entitlement" and "Current entitlement" to Working Families' Tax Credit - terminology

A family's award is assessed on the basis of their circumstances at the application date. The parameters used for this assessment for applications received in 2000-01 are shown at Annex 2.

Awards then last for 26 weeks, during which time the family's circumstances may change. In most cases, however, the award is not re-assessed before the end of the 26 weeks. So families can be receiving WFTC on a day even though an application made on that day would be unsuccessful.

Families are defined as **entitled** to WFTC if they would be receiving payment on that day had they applied at their earliest opportunity; and as **currently entitled** if they would be assessed for an award based on their circumstances on the day. So the currently entitled are a sub-set of the entitled.

Background - growth in WFTC recipients since October 1999

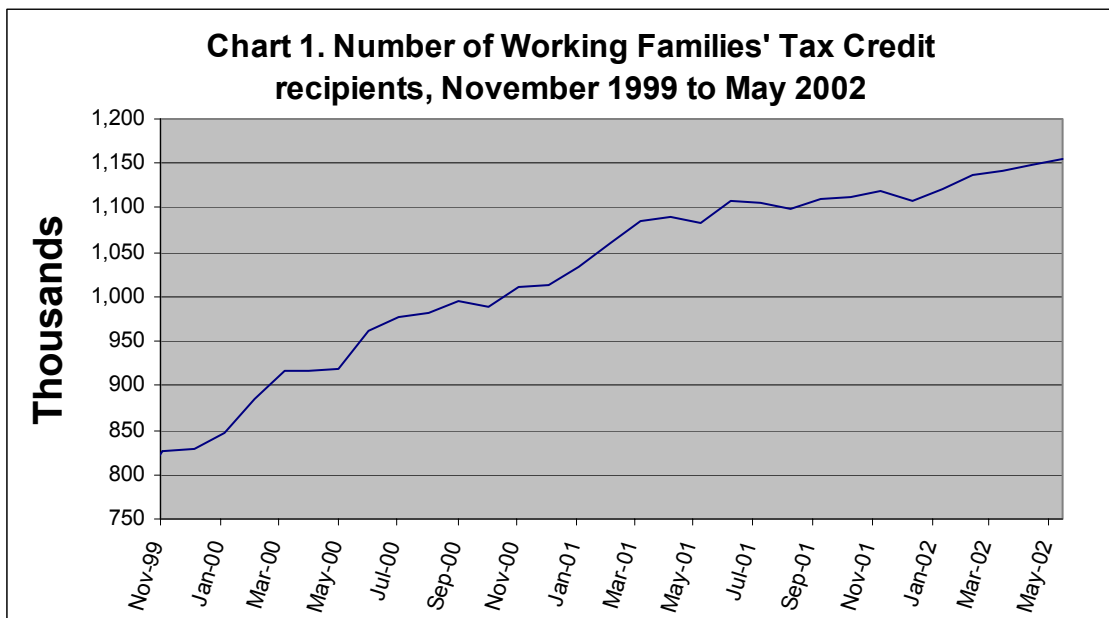
On the coverage basis for this publication, there were 690 thousand recipients of FC at the end of August 1999.

When WFTC replaced FC at October 1999 it was more generous. The values of the credits and of the threshold were higher, the income taper rate was lower, there was more help with childcare costs and all maintenance income was disregarded.

The number of recipients jumped to about 825 thousand by November 1999² and rose to 915 thousand by March 2000 (see Chart 1).

The trend in the number showed strong growth during 2000-01, reaching 1,085 thousand by March 2001. There was an average of 989 thousand WFTC recipients during this year (on this coverage basis).

Although the rate of growth slowed after 2000-01, the number of recipients had grown further, to reach 1,150 thousand by May 2002 - 17 per cent higher than the 2000-01 average.



² The counts of families receiving WFTC up to March 2000 include families receiving FC whose 26-week awards had started before October 1999. They were unable to apply for WFTC until these awards terminated.

Take up rates for 2000-01

Table 1 shows estimates of the numbers of recipients and entitled non-recipients in 2000-01, and hence of the take-up rates by caseload.

The numbers of recipients are known, but the numbers of entitled non-recipients are estimated from sample data and are thus subject to sampling uncertainty. This is why these figures, and hence all the take-up rate figures, are presented as ranges. Annex 1 discusses this further.

Table 1. Take up rates for Working Families' Tax Credit, 2000-01 by caseload

	All families with children	Couples with children	Lone parents
Number of recipients (thousands)	989	445	545
Entitled non-recipients (thousands)	522 to 604	396 to 457	111 to 162
Take-up rate by caseload	62 per cent to 65 per cent	49 per cent to 53 per cent	77 per cent to 83 per cent

More lone parents than couples with children received WFTC in 2000-01. However, Table 1 shows that, adding entitled non-recipients, more couples were entitled to WFTC, and that the take-up rate for lone parents was substantially higher than that for couples.

Table 2 shows that the average amounts unclaimed are substantially lower than the average amounts received, both for couples with children and for lone parents (the median amounts unclaimed by couples are lower still). Correspondingly, the take-up rates by expenditure are much higher than those by caseload. Lone parents still had a much higher take-up rate than couples.

Table 2. Take up rates for Working Families' Tax Credit, 2000-01, by expenditure

	All families with children	Couples with children	Lone parents
Total amount received (£ million)	3,845	1,580	2,265
Amount unclaimed (£ million)*	1,061 to 1,414	725 to 999	272 to 491
Average weekly amount received	£74.74	£68.36	£79.95
Average weekly amount unclaimed	£42.08	£38.66	£52.77
Median weekly amount unclaimed	£35.00	£29.25	£55.71
Take-up rate by expenditure	73 per cent to 78 per cent	61 per cent to 69 per cent	82 per cent to 89 per cent

* Calculated by modelling the entitlement of families in the FRS who reported not receiving WFTC.

Growth in take-up rates within the year

Chart 1 shows that the number receiving WFTC rose throughout 2000-01. Within the overall average of 989 thousand recipients in 2000-01, the average for April to September 2000 was 951 thousand, and that for October 2000 to March 2001 was 1,027 thousand.

The administrative and FRS data allow the calculation of separate take-up rates for each half year; these are shown in Table 3.

Table 3. Take up rates for Working Families' Tax Credit for each half of 2000-01

	Whole year	April 2000 to September 2000	October 2000 to March 2001
Take-up rate by caseload	62 per cent to 65 per cent	58 per cent to 63 per cent	65 per cent to 70 per cent
Take-up rate by expenditure	73 per cent to 78 per cent	69 per cent to 75 per cent	75 per cent to 83 per cent

The take-up rates for the second half of 2000-01 were about 7 percentage points higher than those for the first half of the year.

The further rise to 1,085 thousand recipients by March 2001 suggests that the take-up rates by that date were even higher than the average for the second half of the year, but it is not possible to arrive at estimates of these rates by the methods used here.

Families that would have been entitled to indexed Family Credit

All families receiving WFTC would have been entitled to FC had WFTC not been introduced, and had the 1999-00 FC rates and threshold been indexed at April 2000 in line with inflation; we can identify such families from the administrative data as well as in FRS³. We can therefore calculate the WFTC take-up rates for such families (Table 3), which we can then directly compare with actual FC take-up rates for the equivalent families in years up to 1998-99.

Table 4. Take up rates for Working Families' Tax Credit, 2000-01, for families that would have been entitled to indexed Family Credit

	All families with children	Couples with children	Lone parents
Take-up rate by caseload	75 per cent to 81 per cent	66 per cent to 73 per cent	82 per cent to 90 per cent
Take-up rate by expenditure	78 per cent to 84 per cent	67 per cent to 76 per cent	84 per cent to 93 per cent

³ In fact, the rates are for a slightly larger group of families - those who would have been entitled to indexed FC were maintenance income not brought to account. All but £15 per week of this income was brought to account for FC. As WFTC administrative data include no data on maintenance income, it is not possible to identify WFTC recipients whose maintenance income would have zeroised their hypothetical indexed FC award.

These take-up rates are much higher than the final take-up rates already published for FC, for 1998-99⁴ and reproduced at Table 5, especially for couples. Of course, we do not know what the take-up rates for FC in 2000-01 would have been had WFTC not been introduced.

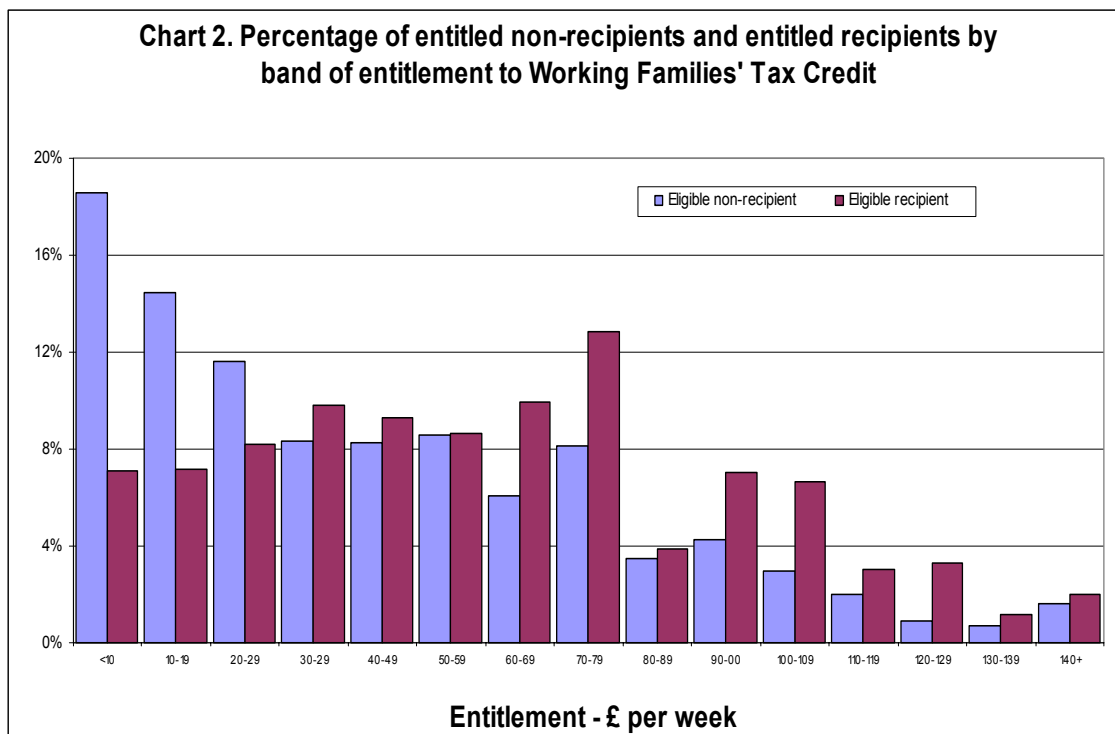
Table 5. Take up rates for Family Credit, 1998-99, by family type

	All families with children	Couples with children	Lone parents
Take-up rate by caseload	66 per cent to 70 per cent	55 per cent to 60 per cent	78 per cent to 84 per cent
Take-up rate by expenditure	73 per cent to 79 per cent	61 per cent to 70 per cent	84 per cent to 91 per cent

Further analysis of entitled non-recipients

Table 2 shows that the average amount unclaimed is lower than the average amount claimed. We would therefore expect families with low entitlements to be more heavily represented among non-recipients than among recipients. Chart 2 confirms this. It is based wholly on FRS data, so the figures for recipients are not taken from the administrative data used in the analyses above.

Families currently entitled to up to £40 per week accounted for over 40 per cent of currently entitled non-recipients, but for just over 20 per cent of currently entitled recipients. At the other end of the scale, families currently entitled to over £80 per week accounted for about 15 per cent of entitled non-recipients, but for over 25 per cent of currently entitled recipients.



⁴ *Income Related Benefits Estimates of Take-up in 1998/99*, (2000) Department of Social Security

Annex 1 : Sources and methods

Data sources

The Family Resources Survey

The Family Resources Survey (FRS) is a household interview survey. The results for 2000-01 were based on data collected by interview from 23,790 households in Great Britain. The survey broadly collects sufficient information on family circumstances, income, savings and childcare costs to model the current entitlement to WFTC of each sample family (that is, to replicate the award assessment were an application to be made at that time). However there are some problem areas, especially with the data collected on hours worked, net earned and other income, savings and childcare costs.

Respondents are also asked whether the family received WFTC at the interview date (or whether the family was awaiting the outcome of an application for WFTC), and whether payment was received directly from Inland Revenue or with pay from an employer.

National estimates are derived from the sample responses via grossing up. There is potential bias in any such estimates, due to differential contact and response rates for different types of family. To reduce this, the grossing system controls the survey results to separate population estimates of benefit units and households, taking into account variables like tenure and Council tax band as well as age, sex and marital status variables. However, this may not eliminate all such bias.

Families with children reporting receipt of neither WFTC nor Child benefit are assumed to be not currently entitled to WFTC. (The reasons for the family not receiving Child benefit are investigated at the interview)

Administrative data

The number of WFTC recipients, their renewal rate, their average amounts received and the number of families with backdated awards are all derived from an analysis of a 5 per cent sample of WFTC recipients (the same as is used to produce some of the statistics in the WFTC Quarterly Enquiries).

Coverage of the estimates

Families awaiting the outcomes of applications; and later disallowances

On any day there are families awaiting the outcomes of applications for WFTC; or are within two weeks of the end of a previous award and can apply for a renewal award to follow on from that award. Successful applications will result in back payments being made, and these families are in effect recipients on the day but with a delay in payment. They are defined to be recipients on the day.

Other families are receiving WFTC on a day but their awards are later wholly disallowed and any payment made is reclaimed. Such families are defined to be non-recipients on the day.

From the administrative data, figures using these definitions are compiled by taking the number of recipients on a day to be the number that, six months later, are reckoned to have awards current on that day. This includes most backdated awards, and excludes most awards that are later disallowed.

We need to exclude from the FRS estimate of currently entitled non-recipients those families that will later fall within the definition of recipients on the interview day, through having backdated awards. We could do this by excluding families who report on the FRS that they are awaiting the outcomes of WFTC applications. However, this would reduce the estimate by 69,000, whereas the administrative

data show an average of only 43,000 extra families being deemed to be in receipt of WFTC by including backdated awards. This casts doubt on how accurately outstanding applications for WFTC are reported on the FRS. We therefore retain in the initial estimates of currently entitled non-recipients families reporting such applications, and instead subtract an aggregate figure of 43,000.

We assume that the estimate of currently entitled non-recipients will exclude families with disallowed awards, as they will appear to be not currently entitled based on the FRS data.

Families with self-employed workers

We cannot reliably model the current entitlement of a FRS family with a self employed worker.

One reason is that the recording of self-employment income in the FRS varies according to when the self-employment started, whether accounts have been prepared and what documents are available at the interview. There are extra problems in recording income from partnerships; and drawings from the business are sometimes taken as a proxy for income. On top of that, self employment income brought to account in an application for WFTC is before deducting depreciation (or capital allowances); and the period over which the income is to be taken varies according to circumstances.

Families with self-employed workers are therefore excluded from the estimate of currently entitled non-recipients, and so also from the count of recipients derived from the administrative data.

Note: In calculating FC take-up rates only families where self-employment was the main source of income were excluded. However, a study of other FRS families in 2001-00 with self employment income suggested that their levels of incomes from self-employment, too, are sufficiently uncertain to warrant their exclusion from the take-up rate calculations. This change has had the effect of raising the calculated take-up rate by about 1 percentage point.

Families with children entitled to Disabled Person's Tax Credit (DPTC)

Families can apply for DPTC instead of WFTC if a working adult has an illness or disability which puts them at a disadvantage in getting a job. The value of the award is £31.75 per week higher for awards starting in 2000-01. The upper savings limit is also £16,000 rather than £8,000.

The estimate of currently entitled non-recipients derived from the FRS includes families also entitled to DPTC, and excludes families receiving DPTC. Correspondingly, therefore, the administrative data count of the number of recipients includes families with children receiving DPTC awards under £31.75 per week and with savings up to £8,000.

Small awards

The minimum award payable is £0.50 per week. This was taken into account in identifying currently entitled families among FRS respondents.

Awards of between £0.50 and £4.05 per week are paid as lump sums at the start of the 26-week period. The administrative data includes such cases, and the FRS identifies families who had received such lump sums within the 26 weeks up to the interview. Such families are therefore regarded as recipients in the take-up rate calculations.

Estimation

As explained above, WFTC is awarded for a period of 26 weeks, irrespective of most changes in family circumstances during that period. So, at any date, a family may not be currently entitled and yet be a recipient because they applied at some time during the previous 26 weeks at a time when they were currently entitled.

We can therefore classify as follows families entitled on any day:

		Assessable for an award based on circumstances on the day (currently entitled)	Not currently entitled, but assessable for an award based on circumstances at some time in the last 26 weeks	Total entitled on the day
Currently receiving WFTC	Number	E_{CR}	E_{L6R}	E_{TR}
	Average amount	A_{CR}	A_{L6R}	A_{TR}
Not currently receiving WFTC	Number	E_{CNR}	E_{L6NR}	E_{TNR}
	Average amount	A_{CNR}	A_{L6NR}	A_{TNR}

The WFTC take-up rate by caseload can be then be defined as:

$$\frac{E_{TR}}{E_{TR} + E_{CNR} + E_{L6NR}} \times 100 \%$$

E_{TR} can be taken from administrative data, and E_{CNR} can be estimated, via modelling, from the FRS. However, no direct estimate of E_{L6NR} is available.

To overcome this, we postulate a value for the percentage of entitled non-recipients that are not currently entitled:

$$\frac{E_{L6NR}}{E_{TNR}} = \%c, \text{ say}$$

The value of %c depends on the proportion of entitled non-recipient families that move out of current entitlement during any 26-week period. We postulate that this proportion is the same as that for recipients. Administrative data provides the proportion of recipients who fail to renew their awards at the end of the 26-week period (%f), and we assume that these are the families moving out of current entitlement during this period. We then assume that, on any day, entitled non-recipients are, on average, half way through the awards to which they are entitled and therefore that a proportion equal to half of %f have moved out of current entitlement by that day. We therefore estimate %c as half of %f.

Then

$$\begin{aligned} E_{L6}NR &= \%c \times E_TNR \\ &= (\%c \times E_CNR) + (\%c \times E_{L6}NR) \end{aligned}$$

Re-arranging,

$$E_{L6}NR = E_CNR \times \%c / (1 - \%c)$$

Substituting this in the **take-up rate by numbers** formula, and simplifying, this becomes:

$$\frac{E_{TR}}{E_{TR} + E_CNR / (1 - \%c)} \times 100 \%$$

The percentages failing to renew (%f) are obtained directly from administrative data. For awards ending in 2000-01 they were 28% for couples and 20% for singles. Thus %c is estimated to be 14% for couples and 10% for singles.

The estimates of **take-up rate by expenditure** also require values for A_{TR} and A_{TNR} . Administrative data yields A_{TR} , and FRS yields an estimate of A_CNR via modelling, but there is no direct estimate of $A_{L6}NR$ or A_{TNR} .

We therefore make the additional assumption that the average amount unclaimed by all entitled non-recipients (A_{TNR}) is the same as the average for those currently entitled (A_CNR).

The formula then becomes:

$$\frac{E_{TR} \times A_{TR}}{(E_{TR} \times A_{TR}) + (E_CNR / (1 - \%c) \times A_CNR)} \times 100 \%$$

Ranges and uncertainty in the estimates

The estimate of the number of entitled non-recipients derived from the FRS is subject to sampling uncertainty. We estimate its standard error by calculating the standard error of the estimated proportion of currently entitled sample families who are in not receipt of WFTC, as derived wholly from FRS, and multiplying this by the estimated number of entitled families. We further multiply by 1.96 and subtract the resulting figure from, and add it to, the point estimate of the number of entitled non-recipients. This yields an approximate 95% confidence interval arising from sampling error, the range presented.

The administrative data is also based on a sample – of 5 per cent of cases. However, the resulting sampling uncertainty is of a lower order of magnitude, so it is only the uncertainty in the estimate of the number of entitled non-recipients that substantially contributes to the range in the take-up rate.

In fact, the total uncertainty in the estimates is rather larger than the ranges suggest. For example, four other uncertainties are:

1. Some recipient families may not report the receipt of WFTC in their FRS interview. To that extent, this will have biased downwards the estimated take-up rate,

This is consistent with the grossed up FRS yielding an estimated average of 860 thousand families receiving WFTC in 2000-01, well below the average of 989 thousand recipients derived from administrative data.

Table A1. Working Families' Tax Credit in 2000-01; estimates derived from administrative data and the grossed-up FRS (thousands)

	Administrative data	Family Resources Survey			Combined		
		Central	Lower	Upper	Central	Lower	Upper
Recipients							
Currently entitled	875	717 ¹					
Other	115	143					
Total	989	860			989	989	989
<i>Couples</i>	445	424 ¹					
<i>Lone parents</i>	545	436 ¹					
<i>Paid by employers</i>	340	340					
<i>Paid direct</i>	649	520 ¹					
Non-recipients							
Currently entitled		491 ¹					
Other entitled		72					
Total entitled		563	522	604	563	522	604
Total entitled					1,552	1,511	1,593
<i>Take-up rate</i>					<i>64%</i>	<i>65%</i>	<i>62%</i>

¹ After an estimated 22 thousand couples and 21 thousand lone parents with backdated awards are switched from non-recipients to recipients.

Some support for this interpretation appears in Table A1. For new and renewal awards starting from April 2000, and for which the adult applying was an employee, most of each WFTC award was paid via the employer. The grossed-up FRS estimate of the number reporting that they were being paid via the employer at the interview date, averaged over 2000-01, is similar to the average number being paid via the employer during 2000-01 derived from the administrative date. The shortfall is in the grossed-up FRS number reporting direct payment. This could be explained by the failure to report the receipt of WFTC in the FRS by some families receiving it directly.

2. Insufficient weights may be given in FRS to the sorts of families entitled to WFTC, despite the use of the grossing regime described above. This is an a second possible factor explaining the under-estimate of WFTC recipients in the FRS. To that extent that this is also true of entitled non-recipients, this will have biased upwards the estimate of the take-up rate.

3. Our modelling of the current entitlement of FRS families reporting that they do not receive WFTC may be inadequate.

As has already been mentioned, some features of the data collected in the FRS mean that our modelling of current entitlement is not exact for all cases. For non-recipients of WFTC, we might suspect that, on average, our modelling is more likely to have over-estimated current entitlement, as

its correction would then bring non-entitlement and non-receipt more into line, rather than driving them further apart. If anything, then, we might suspect that any such error will have biased downwards the estimated take-up rate.

Possible evidence the other way is provided by the grossed-up FRS estimate of the number of recipients modelled as not currently entitled being 143 thousand (about 17 per cent of recipients). This is higher than the estimate derived from administrative data of an average 115 thousand recipients (12 per cent of all recipients) being not currently entitled. The FRS estimate may too high because the modelling, on average, under-states the current entitlement of recipients. To the extent that this also applies to non-recipients, this will have biased upwards the estimated take-up rate.

However, the estimate of 115 thousand is based on an assumption that half of non-renewing recipients had moved out of current entitlement by a randomly selected day during their award. In fact, the movement out of current entitlement may be concentrated towards the starts of awards. This would bring the estimate closer to the 143 thousand. This concentration is generated by behaviour by recipients which may not be replicated by non-recipients. To that extent, this explanation of the difference between the estimates would give no cause to suspect bias in the estimate of $E_{L6}NR$, and the take-up rate, as %c for non-recipients is still appropriately estimated as half of %f.

4. The 43,000 subtracted from the initial estimate of currently entitled non-recipients, because they will ultimately have awards covering the interview date, may be too low. After grossing, 69,000 within the initial estimate reported that they were awaiting the outcomes of applications for WFTC, and others will still have had time after the interview to apply for renewal awards so as to fall within the definition of “recipients”. The estimate of 43,000 has been preferred on the basis that the reporting of applications outstanding on the FRS may have been inaccurate. However, the 69,000 may include some families whose awards have started by the interview date but who not yet received their first payment, or evidence of their first payment. These families should also be excluded from the estimate of currently entitled non-recipients. To the extent that the true number to be subtracted should be higher than 43,000, this will have biased downwards the estimated take-up rate.

Annex 2 : Rates and thresholds

The following table shows the rates, thresholds and other parameters used to assess an application for Working Families' Tax Credit payable in 2000-01.

		Starting during:	
		1999-00	2000-01
Basic tax credit	£ per week	52.30	53.15
30-hour tax credit	£ per week	11.05	11.25
Child tax credit			
Under 11	£ per week	19.85	25.60 ²
11-16 ¹	£ per week	20.90	25.60 ²
16-18 ¹	£ per week	25.95	26.35
Disabled child tax credit	£ per week		22.25 ³
Childcare tax credit			
Maximum costs allowed			
1 child	£ per week	100	100
2+ children	£ per week	150	150
Percentage of allowed childcare costs in credit		70%	70%
Savings			
Amount disregarded	£	3,000	3,000
£1 per week income assumed per additional:	£	250	250
Upper limit	£	8,000	8,000
Reduction of award through income ⁴			
Income threshold	£ per week	90.99	91.45
Income taper rate		55%	55%
Minimum award	£ per week	0.50	0.50

¹ Rates apply to awards starting from the September following the child's relevant birthday.

² For awards starting from 6 June 2000. £21.25 for awards starting during April and May 2000.

³ Payable in addition to the child tax credit. Available only in awards starting from October 2000.

⁴ Income is net of tax, national insurance contributions and half pension contributions, and excludes

Child benefit, Housing benefit, Council tax benefit, maintenance and investment income. The award is

reduced by the excess of income over the threshold, multiplied by the income taper rate.