Comparing In-work Benefits and Financial Work Incentives for Low-income Families in the US and the UK

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The goals of income transfer systems in the US and the UK for low-income families are to reduce poverty and welfare dependency and encourage work. Both the US and UK have made in-work benefits a key part of their strategy through the Earned Income Tax Credit (EITC) and Working Families' Tax Credit (WFTC) respectively. But although similar in aims, there are significant differences in how the WFTC and EITC are structured and how they work operationally. In both countries, the combination of in-work benefits and welfare benefits produces a theoretical budget constraint with good financial incentives for lone parents to take a minimum wage job, but poor incentives to increase earnings beyond that. Help with housing costs and childcare costs reduce financial work incentives in both countries. Two further factors make direct comparisons of financial work incentives difficult. First, little is known about take-up rates of in-work and other welfare benefit rates in the US and UK, but recent falls in the numbers of US welfare benefits suggest that take-up rates may vary considerably between and within countries. Second, the differences in assessment and payment mechanisms between the EITC and the WFTC mean that low-income families in the UK and US may respond very differently to apparently similar financial incentives.

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1. Introduction

In-work benefits or earned-income tax credits are a method of poverty relief that do not create adverse work incentives, a goal justified on both economic and political grounds[2]. They do this by making the receipt of the benefit conditional on employment (either positive earnings or positive hours of work), in contrast to traditional welfare payments or the negative income tax experiment in the US[3].

Both the UK and the US have used in-work benefits for more than two decades, with broadly the same objectives. In both countries, in-work benefits have started with families with children, probably reflecting the fact that the unemployment trap for families with children has traditionally been worse than for families without children[4]. It also reflects greater in-work costs for families with children (i.e. childcare) and, explicitly in the UK but no less importantly in the US, the desire to reduce child poverty and thus hopefully reduce the damaging long-term effects of low incomes on children's development[5].

But in-work benefits are only one mechanism used in the US and UK to transfer income to low-income families with children. In the US, Food Stamps and Temporary Assistance for Needy Families provide support - with conditions - to low-income families in and out of work, but together they can lead to a significant poverty and unemployment trap. In the UK, there is a clearer distinction between in-work and out-of-work benefits. We draw together separate strands of research to compare welfare and in-work benefits in the US and UK for low-income families with children. We then investigate the financial work incentives implied by the budget constraints for lone parents in the US and UK in

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[2] Drawn from Blundell (2000). Eissa and Liebman (1996) say that: "advocates of the EITC argue that the credit transfers income to a particularly *deserving* group of the poor, the working poor, and that the redistribution occurs with much less *distortion of labour supply* that is caused by other elements of the welfare system." [emphasis added to highlight the political and economic arguments respectively].
[3] See Robins (1985).
[4] HMT (2000) and Gregg and Machin (1998), for example, make this point.
[5] HMT (1999) and OMB (2000). Knox et al (2000) report some evaluation results showing that policy interventions that raise family income can positively affect child well-being.

2000 or 2001 considering in-work benefits and welfare benefits[6]. We find a similar pattern in the two countries: good financial incentives to do some minimum-wage work, but poor financial incentives to increase earnings beyond that point because of relatively higher marginal withdrawal rates. We quantify the importance of in-work benefits in providing work incentives, but do not attempt to evaluate the effectiveness of in-work benefits in increasing labour supply, nor do we analyse long-term consequences of in-work benefits on wage progression or human capital accumulation[7].

But two important factors make direct comparisons of budget constraints and replacement ratios for stylised families an over-simplification of reality. First, to see how relevant theoretical financial work incentives are across the population, entitlement needs to be studied alongside take-up. Slightly more is known about take-up rates of in-work and other welfare benefit rates in the UK than the US, but the recent substantial falls in the numbers of lone parents on US welfare benefits suggest that take-up rates may vary considerably between the US and the UK, and also that within countries, they can vary between benefits and over time.

Second, graphs of the budget constraints can hide the many operational differences between the WFTC and EITC. We show that there are significant differences, despite the similar aims of the two in-work benefits. There are:

i. differences in the assessment period and payment mechanisms, which have implications for short-run labour market dynamics and work incentives;
ii. different rules that determine how the credits interact with other parts of the tax and benefit system;
iii. differences in eligibility which effect, amongst other things, the incentives to partner, marry and form new households.

[6] In particular, we build on Walker and Wiseman (1997) and Blundell and MaCurdy (1998), who compare the budget constraints for low-income families in the UK and the US in 1996.
[7] Blundell (2000) reviews the effect of in-work benefits on labour supply. There are two longer-term issues relating to in-work benefits. First, individuals on high marginal withdrawal rates may face reduced incentives to increase earnings and thus human capital accumulation (Heckman et al, 1999). Second, in-work benefits may encourage more people into the type of jobs that provide few opportunities for wage growth (see, eg, Gottschalk (2000), Burtless (2000) and Dickens (2000)).

The most important of these is the first: amongst a myopic or credit-constrained population, we should expect different behavioural responses to an in-work benefit that is paid annually to one that is paid fortnightly or monthly, particularly when the value of the benefit can represent over a quarter of total family income. For the same reasons, we would also expect different reactions to a given marginal withdrawal rate when the responsiveness of the in-work benefit is annual, compared to one that reacts every six months.

The paper is arranged as follows: section 2 discusses the systems for financial support for low-income families in the US and the UK, and introduces some direct financial comparisons between the EITC and the WFTC. It also provides some labour market context by comparing the low-wage labour markets in both countries, and comparing lone parents' relative position. Section 3 compares the theoretical budget constraints faced by low-income families in the US and UK. It examines the importance of in-work benefits in ensuring that work pays for low-income families, and shows how housing and childcare subsidies in both countries affect financial work incentives and explores the first of the complicating factors mentioned above by describing what is known about take-up rates and caseloads. Section 4 explores the main operational differences between the EITC and the WFTC, particularly those that relate to the payment and assessment mechanisms. Section 5 concludes.

A brief note on terminology: *welfare payments* or *welfare benefits* are the US terms for transfer payments available to low-income families who may be out of work or have low earnings; we use the term to refer also to the UK's transfer payments for families who are out of work. The *caseload* of a benefit is the number of families claiming it; the *take-up rate* is caseload as a proportion of total eligible families. The *marginal withdrawal rate* is the amount of benefit lost and tax paid when income increases at the margin. US studies talk about the *phase-out range* of a benefit where increases in income lead to reduced benefit entitlement: this is known as a *taper* in the UK, so we say that an in-work benefit is tapered away as income rises. Income is *disregarded* if it does not affect the value of a means-tested benefit or tax credit.

2. A description of transfer systems in UK and US

2.1 Financial support for low-income families in the US

Low-income families in the US can potentially receive financial support from Food Stamps, Temporary Assistance for Needy Families (TANF) and the Earned Income Tax Credit (EITC)[8]. The Medicaid programme, federal housing support, and childcare subsidies provide important in-kind transfers. Other smaller programmes provide assistance for low-income families including: school lunch programs, supplemental food program for women, infants and children, energy assistance, Head Start and various training programmes[9]; these are not described further here[10]. A small EITC is available to individuals without children, but our focus is families with children, so we do not consider it further.

Temporary Assistance for Needy Families (TANF) is the main welfare programme in the US. It provides income support to low-income families in and out of work. TANF was created by the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA). This legislation abolished the Aid to Families with Dependent Children (AFDC) program, which was funded by the federal government, and replaced it with a block grant to States. States and counties were given much greater discretion over welfare policy under the TANF block grant, but also had to meet key targets on employment of welfare recipients, getting 40% into work by 2000, and 50% by 2002[11]. They are also

[8] The Food Stamps program originally gave out vouchers for food, but it is widely seen as a pure financial benefit as there is consensus that the value of the programme to a family is less than their total food budget.
[9] This description, and other details not otherwise footnoted, are taken from Committee on Ways and Means (1998), now updated every other year.
[10] See Blau (2000) for details of US programmes.
[11] Schoeni and Blank (2000) argue that, in practice, many States had already departed from the federally-imposed AFDC rules by 1996 through "waivers". A full discussion of the history of AFDC can also be found in Meyer and Rosenbaum (2000), Blank et al (2000) and Committee on Ways and Means (1998).

prohibited from using federal funds to pay TANF to families for more than 60 months. TANF has slightly different aims from AFDC[12]: it aims to end dependence of parents upon benefits by promoting work readiness, aid low-income families so children may be cared for in their homes or those of relatives, reduce out-of-wedlock pregnancies, and encourage formation and maintenance of two–parent families.

PRWORA means that States have considerable freedom to determine the eligibility, generosity, work requirements and other TANF rules, making it difficult to characterise the system facing a typical low-income family in the US[13]. But most States provide a maximum credit to low-income families, subject to resource limits, time limits and work or job-search requirements (unlike AFDC, most States' TANF programmes extend payments to married couples). The credit is then tapered away as income rises, perhaps after an initial disregard. For example, in 1997, Florida provided a maximum monthly credit of $331 to a lone parent family with 2 children. After a $200 disregard, the credit is tapered away at 50% of extra income. One extra complication is the increasing tendency for states' TANF systems to provide "rewards" for welfare entry. This comes about because the definition of income used for calculating entitlement is not the same as that used to calculate eligibility to participate: a family with a given monthly income may be at the upper-end of income-eligibility to participate in TANF, but still receive a significant TANF payment. This leads to situation of horizontal inequity where two equivalent families on the same gross incomes - one with no history of TANF support and one on TANF – have different disposable incomes. It also means that some families can increase their disposable income by reducing their earnings and applying for TANF[14].

Food Stamps are available to low-income families in and out of work, as long as they meet certain resource constraints and job-search or training conditions for those out of work. They provide a monthly allowance tapered away as incomes rise, after allowances

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[12] Taken from Schoeni and Blank (2000).

[13] Committee on Ways and Means (1998) describes the rules that the federal government imposes on States in return for their block grant. Gallagher et al (1998) provides a comprehensive description of the TANF rules in all States as of October 1997.

[14] Drawn from discussion with Michael Wiseman, and see Rowe (forthcoming).

for housing and caring costs. Food Stamps count TANF payments as income, so to some extent they compensate families who receive low TANF payments. A lone parent with 2 children would receive a maximum payment of $335 a month, with a $134 earnings disregard followed by a 24% taper[15]. 47% of Food Stamps are now paid electronically (and all will be paid electronically by 2002) making them very similar to traditional income support programs.

Medicaid and housing subsidies are in-kind subsidies available to low-income families. Both are related to low incomes rather than being linked to welfare receipt (eg, all TANF recipients and young children in low-income families are eligible for Medicaid; TANF-leavers continue to receive Medicaid for a transitional period of at least 12 months). Federal housing subsidies are less important: only 20 per cent of low-income families receive them[16]. Some States run their own schemes providing emergency or temporary assistance. These come under the name of General Assistance programmes. They are particularly important for adults without children, or those not eligible for TANF[17].

Food Stamps and TANF are paid by state welfare offices, but the EITC is a federally-run program. Families apply for it when they file their annual tax returns, and it is designed as refundable tax credit, so that EITC awards in excess of tax liability are paid direct to the taxpayer[18]. Couples are assessed jointly: eligibility depends upon earned income and the number of qualifying children; families with high levels of investment income cannot claim. The work condition is just that the taxpayer (either taxpayer in a couple) had positive earned income[19]. The amount of credit depends upon earnings, adjusted gross income (if higher), and the number of qualifying children. There are three regions in the credit schedule. In the phase-in region, the credit is equal to a percentage of income until the credit equals the maximum amount. There is then a flat region where the maximum

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[15] October 1999 - September 2000 figures from USDA (1999). The taper on extra income is 30%, but families can disregard 20% of earnings, giving an effective taper on earnings of 24% (30% * 80%).
[16] See Acs et al (1998) or Committee on Ways and Means (1998).
[17] Gallagher et al (1999) is an overview.
[18] A non-refundable tax credit merely reduces tax liabilities to some non-negative amount, and so is worth more to well-off families than those paying little tax.
[19] Before 1991, claimants had to earn more in a year than they had received from AFDC, a more restrictive condition.

credit is received. In the phase-out region, the credit is tapered away to zero. When families file their 2000 tax returns, a family with two or more children will receive a maximum credit of $3,888 between incomes of $9,720 and $12,690, and the credit will not be fully tapered away until income reaches $31,152[20]. Three fifths of EITC claimants were estimated to be on the phase-out portion of the credit in 1998; 23% were on the phase-in and 15% on the plateau[21]. The average EITC award for families with children in that year was $1,890, and around 85% of the total EITC claimed was refunded to claimants[22]. About two-thirds of expenditure goes to lone parents[23]. Non-compliance is an issue for the EITC, mostly because claimants wrongly identify themselves as having a "qualifying child": in 1994, 25.8% of the total EITC claimed was over-claimed[24].

The EITC began in 1975 as a modest program aimed at offsetting the social security payroll tax for low-income families with children[25]. But it has now become a key plank in the federal Government's anti-poverty strategy, following major expansions in the tax acts of 1986, 1990 and 1993 (taking effect in 1987, 1991 and 1994-6 respectively). The 1987 reform increased the phase-in rate and the maximum credit, and reduced the phase-out taper. The 1991 reforms further increased the maximum credit, introduced separate credit rates for families with more than one child, and made a number of significant rule changes to increase the value of the EITC to the very poorest families (removing the requirement for claimants to earn more than they received in AFDC payments, and disregarding EITC in the test for AFDC entitlement). The first Clinton reforms in 1993 dramatically increased the generosity of the credit and the length of the phase-out range for all families. It also introduced a small credit for working adults with no children. There have been only inflation increases in the generosity of the credit since 1996, but

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[20] See Table 18, discussed in Section 4, for more detail of the present EITC, and Figure 1 for the graph of the schedule. Table 3.4 in Blundell and Hoynes (2000) summarises the parameters of the EITC from 1975 to 1997

[21] Chart 1 in Joint Committee on Taxation (1998).

[22] IRS (2000).

[23] Committee on Ways and Means (1996).

[24] GAO (1997).

[25] The discussion of the history of the EITC is drawn from Eissa and Liebman (1996), Eissa and Hoynes (1998) and Meyer and Rosenbaum (2000). Table 13-12 in Committee on Ways and Means (1998) contains a legislative history and parameters from 1975-1997. Table 1 gives a timeline comparing key developments ...*(cont)*

President Clinton's final proposals for the 2001 Budget include an expansion of the EITC for married couples and families with two or more children, by increasing the maximum credit by around $500 for families with three or more children, by reducing the phase-out rate for families with 2 or more children, and by allowing two-earner married couples to earn more (up to $14,480) before they move onto the phase-out part of the credit[26].

Individual States are free to supplement the federal EITC scheme with their own Earned Income Tax Credits. As of June 2000, 14 States did so, though neither Florida or California, with two of the three states with the highest federal EITC caseloads, have yet introduced a state EITC. Table 2 gives brief details[27]. 13 of these piggy-back on the federal EITC, with the same eligibility rules, and a State credit equal to a proportion of the federal credit. In 5 of these 13 States, the credit is non-refundable. The 14th State, Minnesota, has a credit with the same eligibility rules but different payment structure to the federal EITC. In addition to these 14, Indiana has an in-work benefit that is not related to the EITC. Although some studies have exploited the intra-state variation in financial work incentives resulting from state-level EITCs to identify the effects of in-work benefit reforms, there has been little work done on the effect of the state-level EITCs over and above the federal EITC.

Low-income families in work will also have to pay federal (and perhaps State) income taxes and payroll taxes. Table 3 summarises the main parameters of the federal taxes. The relatively large income tax allowances for parents and the new $500 child tax credit mean that federal income tax liabilities are very low for low-income families, but the social security tax, at 7.65% of income, is more significant[28]. However, the system of federal tax withholding tends to over-withhold for low-income families.

There are a number of means-tested (or otherwise targeted at low-income families) childcare programs operating at the federal level in the US. The two most important are

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to in-work benefits in the UK and US.

[26] See Office of Management and Budget (2000).

[27] From Johnson (1999) and Johnson (2000).

the Child Care and Development Fund, and the Dependent Care Tax Credit (CCDF and DCTC)[29]. The PRWORA act that replaced AFDC with TANF also rationalised the then extant childcare subsidy programs into the Child Care and Development Fund (CCDF). As with TANF, States have considerable flexibility to design their own childcare subsidy programs with the aim of facilitating the transition from welfare into work and helping maintain the income of low-income families. Under CCDF, States give childcare vouchers to low-income families, charging the families an income-related "co-payment" (which could be zero). The vouchers are supposed to be sufficient to purchase childcare without needing to be "topped up" by the parents, but there is evidence that in practice parents have to top up the voucher as well as making a co-payment. Take-up of these vouchers is very low: it is estimated that 15% of eligible families benefit from this scheme[30]. Middle- and high-income families in the US can benefit from the Dependent Care Tax Credit (DCTC), which is a tax credit for employment-related costs relating to dependants, including childcare costs. But because this tax credit is non-refundable, low-income families with low or zero income tax liabilities will not see much benefit from this.

2.2 Financial Support for low-income families in the UK

Support for low-income families in the UK is more sharply divided than the US between out-of-work and in-work support. Unlike the US, there is a universal transfer programme for families with children called Child Benefit, worth £15 (£10) a week for the first (subsequent) child, and taken-up by almost all families with children in the UK[31]. Low-income out-of-work families are generally eligible for Job Seeker's Allowance (income-based) or Income Support (abbreviated to JSA(IB) and IS). IS and JSA(IB) are worth the same for equivalent families (including Child Benefit, £128.35 a week for a lone parent

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[28] See Mitrusi and Poterba (2000).

[29] Drawn from Blau (2000), a thorough review of the US federal childcare programs, and of evaluations of childcare programs on employment and child development. Capizzano et al (2000) provide some detail on parents' childcare arrangements in the US. Long et al (1998) gives more detail on the variation in rules between States.

[30] CCDF is a capped program, and there is no obligation for states to serve all eligible families.

[31] April 2000-2001 rates. This, and other UK figures, are taken from George et al (2000), which provides a complete description of the UK's welfare benefits and is updated annually. A summary of the UK tax and ...*(cont)*

with two children from November 2000), but JSA(IB) imposes job search requirements: only couple families with long-term sickness or disabilities and lone parents can claim Income Support. IS and JSA(IB) have an earnings disregard of £10 (£15) a week for two-parent families (lone parents) followed by a 100% withdrawal rate. Neither benefit is available to parents working 16 or more hours a week: beyond 16 hours, families can receive support from the Working Families' Tax Credit (WFTC).

The WFTC is a refundable tax credit available to families working more than 16 hours a week (subject to certain resource constraints) - a more restrictive "work requirement" than the EITC. The amount of credit depends upon earnings, hours worked, and the number of qualifying children. Couples are assessed jointly. There are two regions in the credit schedule. The basic credit is worth £105.95 a week to a lone parent with two children (see Table 18 for full parameters and Figure 2 for a graph of the schedule; all refer to rates from June 2000). Beyond an after-tax income of £91.45 a week, the credit is tapered away at 55%, with a small extra credit for families where someone works more than 30 hours a week. The credit is fully tapered away for a family with two children at a gross income of £400 a week. In February 2000, the average WFTC award was £71.45 a week. Average gross weekly income of claimants was £153, and average weekly hours worked 30.5. 51% of recipients were lone parents[32].

In addition, low-income households can receive help with rental housing costs through Housing Benefit (HB), and help for the local tax in the UK (through Council Tax Benefit). About four-fifths of lone parents and around two-thirds of couples on IS and JSA(IB) are also on HB. Working families are less likely to be on HB: around a third of the total Family Credit caseload were also on Housing Benefit, and it is estimated that around 12% of all families on WFTC will also be on Housing Benefit[33]. Some families

benefit system can also be found at http://www.ifs.org.uk.

[32] From IR (2000c). These figures ignore the few remaining FC cases in February 2000.

[33] See DSS (2000a/b) for out-of-work families, and Hansard (2000) for WFTC claimants, but note that the latter estimate assumes that all families newly-eligible for the WFTC – very few of whom would be eligible for HB – claim the WFTC.

on out-of-work benefits are eligible for help with mortgage interest payments[34]. Families on low incomes (all those on Income Support or JSA and those earning less than £14,300 gross) are eligible for in-kind health benefits (although these are of considerably less value than Medicaid); families on out-of-work benefits are eligible for free school meals.

Working low-income families will pay higher income tax and national insurance contributions, in general, than the US equivalents. Unlike the US, the UK system is based on individual taxation, with no allowances for dependents, although families will be able to claim a £442 non-refundable children's tax credit from April 2001, phased out where there is a higher-rate taxpayer in the family (incomes over £32,785 in 2000-01)[35].

The UK also has a long history of in-work benefits, beginning with Family Income Supplement (FIS) in 1971[36]. The present instrument, the Working Families' Tax Credit (WFTC) was first announced in 1998 as a replacement for Family Credit (FC). The WFTC started in October 1999, and was fully phased-in by April 2000. Two key differences between the WFTC and FC are its generosity and the payment mechanism[37]. WFTC is more generous than FC in three ways: it has higher credits, particularly those for young children, families can earn more before the credit is phased out, and it has a lower withdrawal rate.

The WFTC also significantly changed the system of support for childcare costs. Under FC, childcare costs up to £60 (£100) a week for families with 1 (2) children under 12 could be disregarded before the credit was phased out. Under the WFTC, there is a separate Childcare Tax Credit. This is more generous than the FC childcare disregard - providing a 70% subsidy to the parent on costs up to £150 a week for families with two

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[34] There is a 40 week qualifying period for loans taken out since October 1995, and an 8 week qualifying period followed by 18 week period of a 50% reduced rate for loans taken out before October 1995. Around 210,000 working age households were receiving such help (DSS, 2000a&b) , almost all of whom are receiving the full interest support.
[35] See Table 4 for main rates, and Gale (1997) for a analysis of the whole UK tax system from a US perspective.
[36] Blundell and Hoynes (2000) and Duncan and Reed (2000) contain full details**.**
[37] See Blundell et al (2000) and Dilnot and McCrae (1999) for a more detailed comparison of WFTC and FC.

or more children – and is paid in addition to the WFTC, rather than being a disregard, making it substantially more generous to those on the lowest incomes. The Childcare Tax Credit award is added to the Working Families' Tax Credit award before the credits are consecutively tapered away. This means that families receiving the Childcare Tax Credit can still receive support at higher incomes than suggested in Figure 2: a lone parent with two children claiming the maximum Childcare Tax Credit (£105 a week) will not have her credit fully tapered away until she reaches a gross weekly income of £660 (see Figure 16). 93,000 families were claiming the Childcare Tax Credit in February 2000, a 79% increase upon the number using the disregard in Family Credit, but still only 9% of the total WFTC caseload. One key difference with the US childcare vouchers is that the Childcare Tax Credit does not subsidise paid childcare arrangements with unregistered childcare providers - CCDF families can use their vouchers to purchase childcare from relatives.

The other change heralded by the WFTC was that, from April 2000, families receive the WFTC as a refundable tax credit paid through the wage packet (although the self-employed and couples with only one earner can have the credit paid as a traditional welfare payment).

2.3 Comparing the structure and generosity of the EITC and WFTC

Figures 1 and 2 show the schedules for WFTC and the EITC, and figures 3 & 4 directly compare the financial generosity of the two credits for a low-income family with two children[38]. The EITC is paid once a year, but the WFTC is paid at regular intervals over a 26 week period, so a low-income family in the UK could make 1 or 2 WFTC claims over a 52 week period, depending how their earnings were spread over the year. We show the two alternatives, with Figures 3 and 4 assuming 2 and 1 WFTC claims in a year respectively.

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[38] Assuming £1/$1.50. In Section 3 we model the full budget constraint and make more sophisticated ...*(cont)*

2.4 Trends in lone parents' employment and poverty rates in US and UK

It is fair to assume that the differing development of in-work benefits in the UK and the US reflect in part low-income families' differing experiences in the labour market in the two countries. We do not attempt a complete comparison of that here, but instead highlight two key features[39].

The main reason that studies focus on lone parents when comparing in-work benefits is that lone parents are less likely to work and more likely to be in poverty than other family types. Lone parents in the US and the UK are less likely to work full-time than other household types. But there is a clear difference in the level and trend of lone parents' employment rates between the two countries: annual employment rates for lone mothers in the US rose by 9 percentage points between 1984 and 1996 to reach 82%, rising by over 13 percentage point for those with young children. Employment rates in the UK however, have remained at around 45% over the past decade[40].

Working lone parents are increasing likely to be in poverty in both the US and UK. The poverty rate for working US lone mothers rose from 23% in 1988 to 27% in 1996. In the UK, the percentage of working lone parents with less than half mean income rose from 14% in 1979 to 31% in 1995/6 (although the rate peaked in 1990 at 35%)[41]. Around a quarter of poor families with children in the US now have at least one full-time worker, up from a fifth in 1979. The UK, though, has seen the reverse trend: 46% of poor children had at least one working parent in 1995/6, compared to 57% in 1979, although this includes families with part-time workers only[42].

3. Total financial support and the financial incentive to work for low-income families in the US and UK

comparisons.

[39] See Blundell and Hoynes (2000) and Kaye and Nightingale (2000) for example.

[40] Blank et al (2000) and Meyer and Rosenbaum (2000) document the growth in employment amongst US lone mothers, particularly amongst welfare recipients.

[41] Over the same periods, poverty rates have increased for couple families in the UK, but not in the US.

Section 2 showed that there are a number of income support mechanisms affecting low-income families in the UK and the US. This section compares the overall system of financial support for low-income families in the US and the UK, and discusses the implications for financial work incentives. We do not compare the impact of in-work benefits on labour supply: Blundell (2000) does just that, and Blank et al (2000) and Berlin (2000) look more widely at US welfare reforms to improve financial work incentives[43]. All studies tend to find positive employment and income effects for lone parents from in-work benefits, with more ambiguous findings for couples, but it is difficult to make direct comparisons of program evaluations with estimates from structural models.

3.1 Total financial support for low-income families in the US and UK

Figures 5 and 6 show the budget constraints for a lone parent with 2 children in the US and UK respectively broken down by income source, and assuming full take-up of all entitled benefits[44]. We focus on lone parents both to ease comparison, and because lone parents make up over half the caseload of both the EITC and the WFTC. Although the EITC and the WFTC treat lone parents and couple families identically, the same is not true for the tax system in the US and the welfare system in the US and UK, so the results presented here do not all extend to couple families.

Figure 7 shows the total budget constraint for the US with marginal withdrawal rates (MWRs)[45]. Beyond incomes of around \$2,500, the –40% marginal tax rate of the EITC is completely offset by payroll taxes and tapers on welfare payments. Figure 8 shows that in

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[42] US facts from Bernstein and Hartmann (2000); UK facts from Gregg et al (1999b).
[43] Other recent evaluations include Meyer and Rosenbaum (1999), who look at the employment effects of welfare reforms before 1996; Schoeni and Blank (2000), who look at the effect of reforms throughout the 1990s on a wider range of outcome measures; and Knox et al (2000), who evaluate the recent Minnesota Family Investment Program.
[44] Assuming TANF payments in Florida. We are updating Walker and Wiseman (1997) and Blundell and MaCurdy (1999) - who both compare the budget constraint for low-income families in the UK and US in 1996 - to reflect the reforms to TANF and WFTC since then.
[45] The chart assumes minimum wage work and ignores housing and in-work costs. "Marginal withdrawal ...*(cont)*

the UK. MWRs are higher in general in the UK, and that there are discontinuities in the budget constraint at the points of eligibility for WFTC and the 30 hour credit.

The trade-off between providing support at low incomes and preserving work incentives is considered theoretically by Saez (2000) who examines the design of optimal transfer systems allowing for both participation and work-intensity decisions. Although his theoretical model is simple – it does not, for example, consider the implications of joint assessment and joint labour supply decisions – Saez finds that a transfer system with a phase-in region for earned income is optimal if participation elasticities are relatively more important than work-intensity elasticities in determining labour supply for this group. Blank et al (2000) present a practical theoretical framework for evaluating the trade-offs inherent in designing income-transfer systems, showing that the effectiveness of an in-work benefit reform depends upon the size of the four groups affected by the reform (out of work but eligible for in-work support if in work; in work and receiving in-work support; in work and newly eligible for in-work support, in work and not eligible for in-work support at present work effort) and the magnitude of their behavioural responses.

There are a number of ways to directly compare the two budget constraints. Figure 9 compares net financial support having expressed both budget constraints in £ sterling[46]. Financial support is more generous at low incomes in the UK, but falls at a faster rate as income increases so that UK families pay more in income and payroll taxes than US families at medium and high-incomes. Figures 10 and 12 directly compare budget constraints on a common scale (following Walker and Wiseman, 1997). Figure 10 shows incomes relative to median male weekly earnings, and Figure 12 uses the poverty line for a lone parent family with two children as a benchmark[47]. Expressed relative to median

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rates” as drawn are actually average withdrawal rates over income increases of £500 or $750 increments.
[46] £1/$1.50.
[47] US median male full-time gross weekly earnings in 2000Q1 were $649, 10% higher than the April 2000 UK figure of £391 (applying average earnings growth of 4.6% to the April 1999 estimate) at July 2000 exchange rates ($1.51/£1). In the UK in 1998/9, 60% median household weekly income before housing costs was £168 for a lone parent with 2 children in February 2000 prices. The US poverty line in 1999 for the same family was $258/week. To make these comparable with our budget constraints, the US poverty ...*(cont)*

earnings, Figure 12 confirms that the UK's transfer system for low-income families is more generous at low incomes but less generous above male median earnings. Figure 12 shows that on gross incomes equal to the poverty-threshold, a UK family receives a 50% income supplement, but a US family receives around 25%.

Figure 11 and 13 make the same comparisons for marginal withdrawal rates. In both the US and the UK, entitlement to in-work benefits ends at income levels roughly equal to male median earnings. Marginal withdrawal rates are generally higher in the UK than the US measured on these common scales.

We have ignored employers' payroll taxes and NICs contributions in these charts, mostly to avoid having to analyse the incidence of these taxes.

3.2 Work incentives for low-income families in the UK and US

3.2.1 Replacement ratios and average withdrawal rates

We now go beyond depictions of the budget constraint to examine summary measures of work incentives. Table 5 shows disposable income for a lone mother with two children assuming (i) no earnings, (ii) part-time work at the minimum wage ($443), (iii) full-time work at the minimum wage ($775) and (iv) full-time work at $9/hour ($1,355)[48]. Table 6 shows the implied replacement ratios and average withdrawal rates (AWR). Table 7 shows the AWRs for increasing work effort beyond part-time minimum wage work[49].

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line was expressed in 2000 prices, and the UK poverty line was uprated by the average real growth in median income over the past 4 years to give a value for 2001/2 poverty line in 2000 prices. Sources: BLS (2000), US Census Bureau (2000), ONS (1999), DSS(2000c) respectively.

[48] Drawn from Acs et al (1998), who model work incentives in 12 States covering half the US population, accounting for the effects of TANF, Food Stamps, federal income tax and the EITC, and state-level income taxes and earned income credits. Their data relates to 1997; the main changes since then have been an expansion in some State EITCs. Meyer and Rosenbaum (2000) produce comparable figures for lone mothers between 1984 and 1996 considering taxes, welfare, Medicaid and employer-benefits.

[49] Acs et al calculate "the percentage income gain from increasing work effort", ie: 1 – the reciprocal of the replacement ratio. We show both the average withdrawal rate (AWR) and the replacement ratio as the AWR does not take income effects into account. This has different implications in different circumstances: Gregg et al (1999a) argue that replacement ratios give misleading impressions of work incentives for ...*(cont)*

There is certainly a strong financial incentive to do some work: in these 12 States, a lone parent moving into part-time work will keep at least 70% of her gross earnings. In Mississippi, she will see her income rise by 106% of gross earnings through the combination of a high TANF disregard and the EITC. A lone parent moving into a full-time minimum wage job will keep a smaller proportion of her gross earnings, ranging from 66% in Michigan to 101% in Mississippi. But the budget constraint gives little extra incentive to move into a better-paid full-time job: the replacement ratios for a full-time job at $9/hour are very similar in most States to those that the minimum wage. Table 7 confirms that a lone parent moving from a full-time, minimum wage job to $9/hour will only keep between 11% and 45% of her additional earnings.

Tables 8-10 show the calculations for low-income families in the UK[50]. As in the US, lone parents have very good financial incentives to take some work, but poor financial incentives to move beyond minimum wage-level jobs. A lone parent moving into part-time work will see her income rise by more than her gross earnings, thanks to the WFTC, a more generous situation that in most US States. The average withdrawal rate for full-time minimum wage work is positive but low: a lone parent can keep 80% of her earnings as she moves to full-time work at the minimum wage. The kink in the budget constraint comes around the point where a lone parent moves beyond minimum wage work onto the WFTC taper: the AWR for moving beyond full-time minimum wage work is around 70%. As with the US, replacement ratios for full-time jobs at £6.50/hour are similar to those at the minimum wage.

The incentive to work is generally lower for couples than lone parents: they receive a higher out-of-work income but the same in-work income. Once in work, couples face the same incentives to increase earnings as lone parents. We do not have detailed figures for

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second earners in couples who have an apparently high "out of work" income. The converse, argued by Acs et al, is that average withdrawal rates do not take account of the low levels of out-of-work benefits in some US States for lone parents.

[50] The figures are based on the tax and benefit system from April 2001 expressed in 2000 prices.

married couples in the US, but couples would certainly face better financial work incentives than lone parents in the States that did not extend TANF payments to couples.

3.2.2 Income effects

The incentive to work will depend upon the level of out-of-work income as well as the financial gain to work. Acs et al calculated that a lone parent in the US with no earned income will have an income between 40% and 77% of the official US poverty line in 1997, and that part-time work would be about enough to be above the poverty line. In the UK, a lone parent with 2 children on out-of-work benefits alone will have around 45% median income, but part-time work is sufficient to raise them above 60% median income, the closest approximation to a UK poverty line.

We have also not considered the time limits to TANF payments and the job-search requirements of TANF and of JSA for couples, both of which will act as an extra incentive to work.

3.2.3 What contribution do in-work benefits have in making work pay ?

Table 11 shows AWRs and replacement ratios if we ignore the federal and state-level EITC, and table 12 gives comparable figures for the UK ignoring the Working Families' Tax Credit.

Work incentives in both countries are obviously worse without in-work benefits. But there is a qualitative difference between the US and the UK. Ignoring the EITC increases AWRs for low-income families in the US, but there is still a positive financial gain to work. In the UK, though, the complete withdrawal of out-of-work benefits above 16 hours work a week means there would be a negative financial gain to part-time work without the WFTC: full-time minimum wage work would be needed to see any financial gain to work over welfare.

Tables 13 and 14 confirm these findings by showing the proportion of the financial gain to work that comes from in-work benefits. Without in-work benefits, the gain to work for lone parents moving into minimum wage jobs in the US would be roughly halved. The EITC forms a greater proportion of the gain to work for full-time minimum wage jobs than part-time because of the credit increases in value up to gross incomes of $9,720. But in-work benefits form a substantially higher proportion of the gain to work for low-income families in the UK. As Table 14 also shows, WFTC awards can be greater than the financial gain to work for minimum wage jobs.

Figures 14 and 15 show the whole budget constraint for low-income families without in-work benefits. There is a dramatic unemployment and poverty trap around the 16 hour point un the UK.[51]. In the US, lone parents in the US face high marginal withdrawal rates (67%) up to gross incomes of around $10,000 without the EITC, but still face a positive financial gain to work for all earnings levels. But this exercise really highlights the need to look at the combination of in-work benefits and welfare benefits as their key operational rules have obviously not been developed independently of each other.

Comparing Figures 7 and 14, we can see that lone parents on welfare benefits in the US face a high combined marginal withdrawal rate of up to 70% up to incomes of around $9,500 a year from the combined tapers in Food Stamps and TANF[52]. The EITC's phase-in portion partially offsets this high taper. Low-income families in the UK, though, face a complete withdrawal of out-of-work benefits at 16 hours work a week which could form a significant unemployment trap if the WFTC did not provide a more-than-offsetting cliff-edge at 16 hours work a week (compare Figures 8 and 15). The WFTC is more generous than the EITC at comparable income levels in part because out-of-work benefits are more generous in the UK. And both in-work benefits increase marginal withdrawal rates on incomes above full-time minimum wage jobs.

[51] The chart assumes minimum wage work. As Income Support eligibility depends upon hours worked, families on higher hourly wages would potentially be eligible for Income Support at higher income than shown in Figure 15. This would extend the portion of the budget constraint with 100% marginal withdrawal rates from £3,500, as shown, up to around £7,000.

[52] Although this will vary with the generosity of the state's TANF programme.

3.2.4. Childcare and other in-work costs

The analysis above has ignored in-work costs, of which childcare will be the most important for lone parents. As Section 2 outlined, the systems for subsidising childcare vary within the US as well as between the US and the UK, and with this huge variation in state CCDF rules, it is difficult to quantify how childcare subsidies affect the comparative financial work incentives of lone parents in the US and the UK. Childcare subsidy programmes in both countries will increase the incentive to do some work, but the means-testing of support will reduce the incentive to increase earnings conditional on employment, the same pattern that is present in the budget constraint without childcare subsidies[53]. In the UK, as Figure 16 shows, the childcare tax credit has the potential to significantly increase the income range over which a 69% marginal withdrawal rate applies, although, as of February 2000, only 6,000 Childcare Tax Credit claimants (7% of total) have awards of more than £70 a week.

3.2.5. The effects of tenure on work incentives

We have also abstracted so far from financial help with housing costs. Low-income families may be eligible for help with the cost of renting (in the UK and US) or with mortgage interest payments (out-of-work families in the UK only). We look at the effects of rent subsidies in the UK and the US, and then show how out-of-work UK families receiving help with mortgage interest payments face a substantially reduced financial incentive to work compared to renters.

Tables 15-17 repeat tables 8-10 to show work incentives for low-income families who are claiming Housing Benefit and Council Tax Benefit. These two benefits dramatically reduce the financial incentive to work. Couple families on Housing Benefit can only keep a fifth of gross earnings when moving into part-time minimum wage work, and less than a third of any further increases in earnings. Lone parents on Housing Benefit moving into

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[53] If, though, mothers work in order to afford high quality childcare, then a childcare subsidy will reduce ...*(cont)*

work face average withdrawal rates of over 50% on earnings (a lone parent not on Housing Benefit will never face an average withdrawal rate above 51%). Acs et al show that a similar result is true for those families receiving federal housing subsidies in the US: lone parents see income net of housing costs rise by less than a third when taking a part-time minimum wage job. Subsequent increases of incomes to full-time minimum wage work and then to full-time work at $9/hour (each representing a 75% increase in gross earnings) would lead to income increases of only 14% and 7%[54]. But as Section 2 showed, housing subsidies in the US are relatively less important amongst the population of low-income families than Housing Benefit is in the UK.

Section 2 described how families on out-of-work benefits in the UK can receive help with mortgage interest payments after a qualifying period of 26 or 40 weeks. There is no support for working home-owners in the UK tax system (following the abolition of Mortgage Interest Relief in April 2000), so this support contributes to the unemployment trap. The average weekly payment to lone parents receiving help with mortgage interest was £41.68 in February 2000[55]. this raises the AWRs for a lone parent with two children from –2%/7%/33% to 54%/39%/52% for the three work scenarios in Table 5 (and replacement ratios up from 63% to 84% for part-time minimum wage work). Relatively few families are affected by this unemployment trap: around 210,000 working age households (with and without children) received help with mortgage interest payments in 1999, or 6.6% of families on Income Support, and 5.2% of families on JSA(income-related)[56].

3.3 What do we know about take-up rates ?

Figures 5-8 presented theoretical budget constraints based upon modelled entitlement to welfare and in-work benefits. But actual budget constraints across the population clearly

employment.

[54] These are the median values in Table 6 in Acs et al. The equivalent figures for the UK lone parent are 23%, 18% and 15%.

[55] DSS (2000a).

[56] DSS (2000a &b)

depend upon whether low-income families receive the benefits they are entitled to (we are not suggesting that non-take-up is always voluntary, as some of the US schemes we have described are discretionary). For example, if families entitled to small amounts of in-work benefit do not bother claiming, then the degree to which high marginal deduction rates are extended up the income distribution is reduced. Similarly, if US families do not claim welfare benefits, the marginal withdrawal rates at low incomes are reduced. Studies of take-up are limited, though, but we can make a few comparative observations of caseloads and take-up rates.

Figure 17 shows that, reflecting in part steady increases in their generosity and thus eligible populations, in-work benefit caseloads have grown continuously in both the US and UK since their introduction, with the EITC caseload tripling since its introduction in 1975, and the WFTC caseload 16 times higher than the FIS caseload at the same point in time. The EITC has a caseload over 15 times greater than that of the WFTC, although both in-work benefits end their phase-outs at roughly the same levels, and the working-age population in the US is only around five times as great as that of the UK. Part of the reason for this anomaly will be the eligibility rules: low-income families need to work 16 hours a week to get the WFTC, a stricter work requirement than for the EITC. Another factor will be the comparative distribution of pre-transfer earnings for low-income families.

Studies of take-up rates for the EITC are limited. The key study used data from 1990, and found that 81-86% of eligible families claimed the credit, higher than estimates for welfare benefits[57]. But there have been significant increases in the credit since 1990, so it is likely that take-up rates have also changed if take-up is related to the size of the award. There are no take-up rate estimates for WFTC yet, but it was estimated that 69% of families eligible for Family Credit claimed the credit in 1997, corresponding to 82% of

[57] See Scholz (1994).

total possible expenditure on FC, as the probability of take-up increased with the size of potential award[58].

In contrast to EITC caseloads, welfare caseloads have fallen dramatically during the 1990s, falling from 14.1 million in 1993 to 6.9 million in 1999. Likely causes of this fall include the 1996 PRWORA reforms to TANF, the sustained strong US labour market throughout the 1990s, as well as the sustained increase in the real value of the EITC over this period[59]. There has been little or no attempt, though, to see if take-up rates for welfare benefits have changed over this period, although this is no easy task now that there are very few standard rules or parameters for TANF payments across States. Much may also depend on the attitude of individual welfare offices[60].

US studies of take-up rates of welfare benefits are also somewhat dated. Moffitt and Keane (1998) show how labour supply can be estimated under multiple welfare programs. Tables 15-1 to 15-3 in Committee on Ways and Means (1998) shows how receipt of Food Stamps and AFDC overlapped among low-income families between 1984 and 1995, and gives some estimates for take-up rates for Food Stamps between 1979 and 1992 in Table 15-8. Modelling the time-limited nature of TANF payments will be key to any post-1996 models. The take-up rate of welfare benefits in the UK is less of a concern. Income Support take-up is estimated to be around 80% of the eligible population, or 90% of eligible expenditure[61]. Historically, the number of lone parents on Income Support has been closely linked to the number of workless lone parents, which is unsurprising, as (unlike the US) there have been no substantial statutory or attitudinal changes towards lone parents' eligibility for Income Support between 1988 and 1998[62].

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[58] DSS (1998).
[59] See CEA (1999) for one study amongst many that attempts to explain this phenomenon.
[60] I am grateful to David Ellwood for this observation.
[61] DSS (1998).
[62] From 1998, the New Deal for Lone Parents has offered advice on job-seeking to lone parents on Income Support for more than 6 months. From April 2000, 12 pilot areas are making lone parents' receipt of Income Support conditional on annual interviews to discuss their prospects for work.

This limited survey has shown that we know more about take-up rates in the UK than the US, but given the recent dramatic changes in welfare caseloads and eligibility rules in the US, the need to understand what makes eligible families take-up welfare payments is perhaps greater than ever. The contribution of in-work benefits to financial work incentives – and thus the impact of non-take up - was discussed in Section 3.2.3. The analysis presented above would also change if we had assumed lone parents in the US or UK did not take up welfare payments, with the budget constraint looking more like the basic EITC or WFTC schedules. But we not discuss those scenarios further here, in part because it is not yet widespread practice to examine the interaction of all welfare and in-work benefits in US studies of work incentives and marginal withdrawal rates.

4. Operational differences between the WFTC and the EITC

Section 2 showed that both the EITC and WFTC have apparent similarities: they are aimed at raising the gain to work for low-income families to both encourage families into work and alleviate poverty amongst families in work, and both credits depend upon income and the number of children. Section 3 discussed how they were each crucial to providing some financial incentives to work for low-income families in each country. But exploring the details of the programmes exposes many operational differences.

Table 18 summarises the main features of both programmes. It includes the rates of the WFTC rates as of June 2000, and those of the EITC for 2000[63].

A detailed examination of this table reveals several kinds of differences. These are:

i. differences in the assessment period and payment mechanisms;
ii. different rules that determine how the credits interact with other parts of the tax and benefit system and child support;
iii. differences in eligibility rules.

[63] The table does not look at the childcare tax credit component of the WFTC, as support for childcare in the US is more complicated, and not limited to families on EITC.

We discuss these in turn.

4.1 Assessment period and payment mechanism

The two in-work benefits differ significantly in their assessment period and payment mechanism. The EITC is closely linked with the US income tax system, paid annually in arrears, with the credit assessed on the past year's income[64]. The WFTC does not work in the same way as the income tax system in the UK. The Pay As You Earn (PAYE) system for income tax in the UK is an exact cumulative withholding scheme for taxing earnings that adjusts with each pay cheque to ensure the correct amount is withheld. The WFTC, however, is a weekly award, assessed every 26 weeks on a snap-shot of average weekly income. The assessment period is between 7 weeks and 4 months, depending on the frequency of wage payments. The award is then paid at a fixed rate during the next 26 weeks regardless of any changes in income or employment status (some changes in family circumstances trigger a reassessment of the award). Unlike means-tested benefits or income tax, there is no concept of being under- or over-paid during this 26 week period. There are three behavioural and analytical implications of these features:

i. The long gaps between the assessment of in-work benefits will mean that theoretical marginal withdrawal rates do not apply in the very short-run;
ii. There should be different behavioural and economic effects between receiving an in-work benefit annually and fortnightly or monthly where families are myopic or credit-constrained;
iii. In the UK, the difference between assessment and non-assessment periods introduces some short-run incentives to substitute labour supply and manipulate earnings.

4.1.1 *How appropriate are theoretical marginal withdrawal rates in the very short-run?*

[64] Applicants claim the credit when they file an annual tax return. They then receive the award as a payable rebate of their annual income tax bill. Taxpayers must file before April 15; they typically receive their EITC refund some time in the spring.

The theoretical marginal withdrawal rates implied by the structure of in-work benefits interacting with other parts of the tax and benefit system are a simplification when, in reality, there are significant gaps between assessments[65]. This means that tapers and tax rates will have a financial effect eventually, but not necessarily immediately.

For example, consider a lone mother in the UK receiving WFTC and Housing Benefit, and earning enough to pay income tax and be on the phase-out portion of the WFTC[66]. In the mathematical order in which the tapers are calculated, the lone parent would lose 32% of any increase in gross income to income tax and NIC payments, then lose 55% of the remainder to the WFTC taper, and then lose 65% of the remainder to the Housing Benefit taper. The combined marginal withdrawal rate is 89%[67]. But each of these tapers has a different responsiveness: Housing Benefit awards adjust weekly, and income tax and NICs adjustment monthly to significant changes in earnings. By contrast, the WFTC award would not adjust until the end of her 26 week award period. So in practice, a £10 increase in weekly income would lead to a £1.99 fall in Housing Benefit the next week[68]. The extra £3.20 in income tax and NICs would start to be collected the next month. The WFTC award will be reassessed within the next 6 months, and the award will then fall by 55% of the increase in net income, or £3.74, leading to an overall increase in disposable income for the lone parent of £1.07. During this up-to 6 month period of adjustment, the lone parent would also be liable for any under-taxation or over-payment of Housing Benefit[69]. Similarly, a lone mother in the US would see TANF and Food Stamps payments fall 1 or 2 months after an increase in gross income, but she would not see the effect on her income tax payments and EITC credit until after April 15 the following year - potentially 16 months hence.

[65] We are not referring here to the fact that, under WFTC, some periods of earnings are ignored when assessing awards: the implications of that are discussed below.
[66] This implies a gross income of over £140 a week, and rent levels above the national average for social housing.
[67] 32% + 55%*(1-32%) + 65% * [1 – {32% + 55%*(1-32%)}] = 89.3%..
[68] The Housing Benefit taper of 65% applies to income after taxes and WFTC so the award calculation incorporates the future changes in tax, NICs and WFTC.
[69] In practice, the changes in Housing Benefit are likely to be the bigger problem due to administrative delays.

It is possible to incorporate these features into a standard model by moving into a multi-period world. A simple case might be a two-period problem where the agent chooses consumption and leisure to maximise utility, and there is an in-work benefit paid in the second period based on labour supply in the first period. The in-work benefit distorts labour supply, with the substitution effect encouraging or discouraging work in period 1, depending whether the in-work benefit is an earnings subsidy or a negative income tax. If there are no credit constraints in our model, then the fact that the in-work benefit is paid in period 2 makes almost no difference to the agent's choices[70]. But if the agent is constrained from borrowing in the first period against income in the second, then the distorting effects of the in-work benefit on labour supply in period 1 are reduced[71]. In addition, the in-work benefit will have no income effects on the period 1 labour supply decision. This does not imply that delaying payment of an in-work benefit would lead to a welfare gain - in our example we have assumed the agent is constrained from borrowing, so she would much rather be paid the in-work benefit immediately - but this does suggest that if agents are credit constrained, some of the undesirable impacts of in-work benefits may be reduced. This modification to the standard theoretical model might in practice be more appropriate when looking at the US – where EITC payments could be 12 months away – than the UK, where the WFTC is paid regularly and reassessed every six months.

4.1.2 *Frequency of payments*

The charts in Section 3 arbitrarily chose a year as the time-period of the budget constraint. But we should expect different behavioural and economic effects between receiving an in-work benefit annually and fortnightly if agents are credit-constrained. There is little data yet which can help us distinguish between the labour supply implications of the frequency of payments. But we can look at the economic effects of

[70] The first order conditions are identical to a model with a contemporaneous in-work benefit apart from a (1 + p)/(1+ r) term. If low-income families are very myopic, though, p will be large and the results may be significantly different.

paying the EITC annually by examining what recipients use the money for. Smeeding et al (2000) studied a sample of EITC recipients in Chicago to look at their expectations of, and plans for, an EITC refund. They distinguished between "making ends meet" uses (ie consumption) and "improving economic social mobility" (ie investment). The sample were asked to identify a "priority use"; almost half said that they could not meet this priority without the EITC refund, suggesting that EITC refunds were an important component in family income. The study found that almost 70% planned an "economic and social mobility" use, almost 65% planned a "making ends meet" use, and almost half planned both. The likelihood of planning an "economic and social mobility" was lower for those with three or more children, perhaps reflecting that poverty rates are higher for families with more than 2 children. The study also found that expectation of an EITC refund was positively related to income, and those expecting the refund were more likely to plan an "economic and social mobility" use. These findings suggest that some low-income families treat EITC refunds differently from earned income, taking advantage of the lumpy nature of the EITC to force them into using funds for "investment" purposes rather than consumption[72].

Low-income families in the US can apply to have up to $1,400 worth of the EITC paid in advance through the pay packet. But it is perhaps surprising that less than 1% of recipients elected for this in 1997. There are a number of reasons why this might be so[73]: compliance cost (although this is low); uncertainty over annual earnings, which raises the probability that recipients will have to pay back advance payments at year-end; employees' unwillingness to tell their employers they are receiving the EITC; employers' unwillingness to participate; and a desire to receive annual payments for the "enforced saving" aspects. But no study has investigated in detail the relative importance of these factors, which could shed more light on how recipients treat EITC payments. But with the low take-up of the monthly payment options, it is arguable that the EITC acts "more as a

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[71] Details available from the author on request.
[72] The study could not rationalise all its findings in this way though: they found that only 18% of those with credit card debts (with average value of $2,400) listed paying off that debt as a priority use for an EITC refund.
[73] Drawn from Smeeding et al (2000).

an end-of-year reward than a real-time incentive for undertaking a few more hours of work" (Walker and Wiseman, 1997).

There is a substantial contrast here with the UK, where WFTC payments are paid either fortnightly (for non-earner recipients in a couple family) or with wage payments. This may be a deliberate policy choice in the UK reflecting the greater importance of WFTC payments as a proportion of total income: the EITC credit represents under a quarter of total income, but the WFTC can represent over 40% of total income for low-waged parents. It is consistent too with UK studies showing that predictability of income payments is the key to managing on a low income, with the WFTC providing a fixed income stream over 26 weeks[74].

4.1.3 *Short-run labour market dynamics*

Because the WFTC has a snap-shot assessment period of earnings followed by a period when there is no consideration of earnings, individuals have an incentive to inter-temporally substitute labour supply between assessment periods and non-assessment periods to maximise their WFTC award[75]. This is distortion of behaviour has been little considered by the literature. Evidence from the Family Resources Survey – which can identify whether people on Family Credit are in an assessment period – is suggestive: participation rates for women with working partners on FC during assessment periods is 21%, but this rises to 28% between the assessment periods, when the in-work benefits are essentially a time-limited lump-sum transfer[76].

The EITC does not give this incentive, although the fact that the marginal withdrawal rate of the EITC varies with income does give a theoretical incentive for people to substitute labour supply between fiscal years, although it is not clear whether this is a real concern

[74] Thomas and Pettigrew (1998), cited in Snape et al (1999), although this does refer to households surviving on out-of-work benefits only. Snape et al (1999) also find that out-of-work families prefer to be paid benefits weekly or fortnightly to aid them in budgeting weekly.
[75] This is taken from Blundell and Walker (2000)**.**
[76] The AWR on extra earnings is 32% in non-assessment periods compared to 69% in the assessment
...*(cont)*

in practice.

4.2 Interactions with other parts of the tax and benefit system

There are differences in what counts as income when in-work benefits are assessed, and in whether in-work benefits are counted as income for other means-tested systems of support. Both EITC and WFTC generally disregard other transfer payments (i.e. WFTC disregards, amongst others, attendance allowance, child benefit and Education Maintenance Allowance, Housing Benefit and Council Tax Benefit, maternity allowance and statutory maternity pay; the EITC disregards Food Stamps and TANF payments). But even though both credits are paid in a way that reduces tax liabilities before being paid as cash, they treat tax payments differently: the EITC is based upon gross income, but the WFTC is assessed on income after income tax and national insurance payments. Basing a means-tested award on gross income can lead to high marginal withdrawal rates (this was one of the drawbacks of the FIS which had marginal withdrawal rates over 100%), but as Section 3 showed, this does not occur in the US, as the rates of income tax and payroll tax for most EITC recipients, and the EITC phase-out rate, are relatively low.

Since 1991, EITC awards have not counted as income in other parts of the US tax and welfare system[77]. States are prohibited from counting EITC awards in Food Stamps, SSI and Medicaid assessments. EITC awards did not count as income when assessing AFDC awards, but since 1997, States have been permitted to count EITC payments as income when assessing TANF payments. By contrast, WFTC awards do count as income in assessments of Housing Benefit and Council Tax Benefit awards[78]. As Section 3 showed, this makes it more important to consider the entire budget constraint either when

periods.

[77] When introduced, EITC payments *did* count as income in AFDC calculations; the 1991 reform therefore increased the value of the EITC to families with low earnings, especially when taken alongside the reform in the same year that removed the requirement for claimants to earn more in a year than they received in AFDC payments.

[78] This was also the case under FC. Giles et al (1997) illustrate the effect of the interaction of HB and FC on the gain to work for tenants in the social sector.

comparing the generosity of WFTC to FC (see, for example, Duncan and Reed 2000) or when calculating marginal and average withdrawal rates.

The interaction with child support payments is crucial for assessing the generosity and the work incentives for lone mothers (who comprise around half of WFTC claimants in and two thirds of EITC expenditure). In the US, alimony payments are counted in "adjusted gross income". EITC awards are based on adjusted gross income (income minus various standard tax-free exemptions and allowances) if that is higher than gross earnings and would lead to a smaller EITC award, so receipt of alimony payments would reduce EITC awards for those on earnings of more than $12,690. This is less harsh, though, than the treatment of alimony by TANF schemes: States can now choose how to treat alimony payments, but a majority of States now have an implicit 100% withdrawal rate for alimony payments (the others might have, say, a $50 a month or a 50% disregard).

By contrast, child support payments are disregarded completely when calculating WFTC awards, as they are for income tax purposes. This rule, which is a change from the previous FC regime, could make a significant difference to the budget constraint for lone mothers who receive child support compared as lone parents on Income Support cannot keep any child support payments[79].

4.3 Eligibility rules

Both the EITC and WFTC are targeted at low-income families with children (ignoring the small EITC for people without children). But there are differences in the precise definitions. First, there are small differences in the definition of "children": the EITC is available to parents of children under 19, children in full-time education aged up to 24, and severely disabled offspring of any age. The WFTC follows the usual UK definition of dependent children: under 16 or under 19 and in full-time education. Second, there are

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[79] All charts in this paper have assumed no child support payments. See Paull et al (2000), for a fuller ...*(cont)*

differences in the unit of assessment. The WFTC operates at the level of the usual UK "benefit unit": one or two cohabiting or married adults and their dependent children. Any couple with dependent children is potentially eligible, whether or not there are other adults in the household. The EITC differs in 2 respects. First, like the rest of the US tax system, the EITC treats married couples differently from cohabiting couples. These rules are quite complex: married couples must file jointly to claim the EITC (as couples must in the UK). However, in a cohabiting couple – which cannot file a joint tax return –the adult with the higher income must claim the EITC. Second, eligibility depends in part on the presence of other adults in the household: if a low-income family lives with other adults who also care for the children, these other adults are also potentially eligible to claim the EITC in respect of the children; but, as before, only the adult with the highest income in the household can apply. Third, under the EITC, if a low-income parent would also qualify as a child under EITC rules (i.e. is under 19 or is under 24 and a student) and lives with a relative, then he or she cannot claim the EITC (instead, the relative is deemed to be caring for the low-income parent and their children, and is eligible to claim the EITC instead).

These eligibility rules are designed to limit EITC eligibility where children are cared for by adults who are not the parents (or step-parents), and to encourage marriage – an explicit goal of PRWORA and other US welfare programmes. Compared to the UK, they can lead to some unexpected purse-wallet transfers, as the following stylised example shows. A low-income married couple have a child and file jointly for the EITC in 1995. They divorce in the second half of 1996, so both adults are deemed potentially eligible to claim for the EITC in respect of their child for 1996, as they both cared for the child for at least half a year. But only the adult with the higher income can claim. The woman re-partners in 1997 without marrying or having children; only she is deemed eligible to claim the EITC for her child for 1997, as her unmarried partner has not acted as carer for a full year[80]. The relationship continues, so by year-end 1998, the new partner has been

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discussion of this and implications for lone parents' labour supply.

[80] But if the woman had had children from her new partner, then both her and her new partner would be deemed potentially eligible to claim the EITC for the new child, and (again) only the adult with the higher ...*(cont)*

caring for the child for at least a year, and is therefore potentially eligible to claim the EITC. But again, only the adult with the higher income can claim the EITC. It is clear from this stylised example that the only way that a lone mother can ensure that she can claim the EITC in her own right is not to cohabit, or to only cohabit with men with lower incomes. This may also give the mother an incentive to marry her partner (if she earns less than him) so that they can then make a joint claim for the EITC. The EITC also provides a financial incentive for low-income families to form their own household, which is not found under the WFTC.

Both the WFTC and EITC affect the financial incentive to form a couple[81], because they provide the same level of support to families with the same (combined) income whether there are one or two adults present (although President Clinton's proposals for the EITC in 2001 would slightly offset this effect). This so-called "marriage non-neutrality" is an inevitable feature of any system with joint assessment and non-proportional tax rates. Eissa and Hoynes (2000) discuss this in more detail, including the financial incentives to marry given by the US federal tax system. They note that the EITC provides a *positive* marriage incentive for very low income couples (ie those with joint incomes of less than \$9,720) but a negative marriage incentive for higher incomes. The WFTC, however, only gives a negative financial incentive to form a couple.

5. Conclusions

The goals of income-transfer systems in the US and the UK for low-income families are to reduce poverty and welfare dependency and encourage work, and both countries have made in-work benefits a key part of their strategy. We have described the range of national or federal income-transfer mechanisms to illustrate how in-work benefits are only one mechanism used in the US and UK to transfer income to low-income families. The importance of considering all possible transfer mechanisms has been highlighted by

income can claim. And if the woman had re-married, they would have had to jointly claim the EITC for all their children.

[81] Read "couple" as "married couple" in the US and "married or cohabiting couple" in the UK.

showing that in both the US and the UK, the budget set for a lone parent looks quite different from the simple in-work credit schedule once welfare benefits and taxes are considered.

We compared the financial incentives to work implied by the budget set, and found a similar pattern between the two countries: there are good financial incentives to take a minimum wage job, but poor incentives to increase earnings beyond that. Without in-work benefits, there would be a substantial unemployment trap for low income families in the UK, but the situation would not be quite as severe without the EITC in the US. Subsidies for housing costs and childcare costs can substantially reduce financial work incentives in both countries. Although we have not analysed this in detail, other studies have suggested that this extension of high marginal withdrawal rates to more workers may have long-term implications for parents' human capital accumulation and earnings' growth. An extension of this literature to include more explicit comparisons between the US and the UK would seem fruitful.

We have also discussed two factors which could limit the comparability of financial work incentives between the US and the UK. First, little is known about parents' take-up behaviour regarding in-work and other welfare benefits even though there has been an unprecedented fall in welfare caseloads in the US in recent years. If families entitled to small amounts of in-work benefit do not bother claiming, then the extension of high marginal deduction rates up the income distribution is reduced. Similarly, if US families do not claim welfare benefits, the marginal withdrawal rates at low incomes are reduced. Second, although similar in aims, there are significant differences in how the WFTC and EITC are assessed and paid which have implications for short-run work incentives and labour market dynamics. In particular, we should expect different behavioural responses amongst a myopic or credit-constrained population to an in-work benefit that is paid annually to one that is paid fortnightly or monthly, particularly when the value of the benefit can represent over a quarter of total family income.

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Figure 1. EITC schedule, 2000

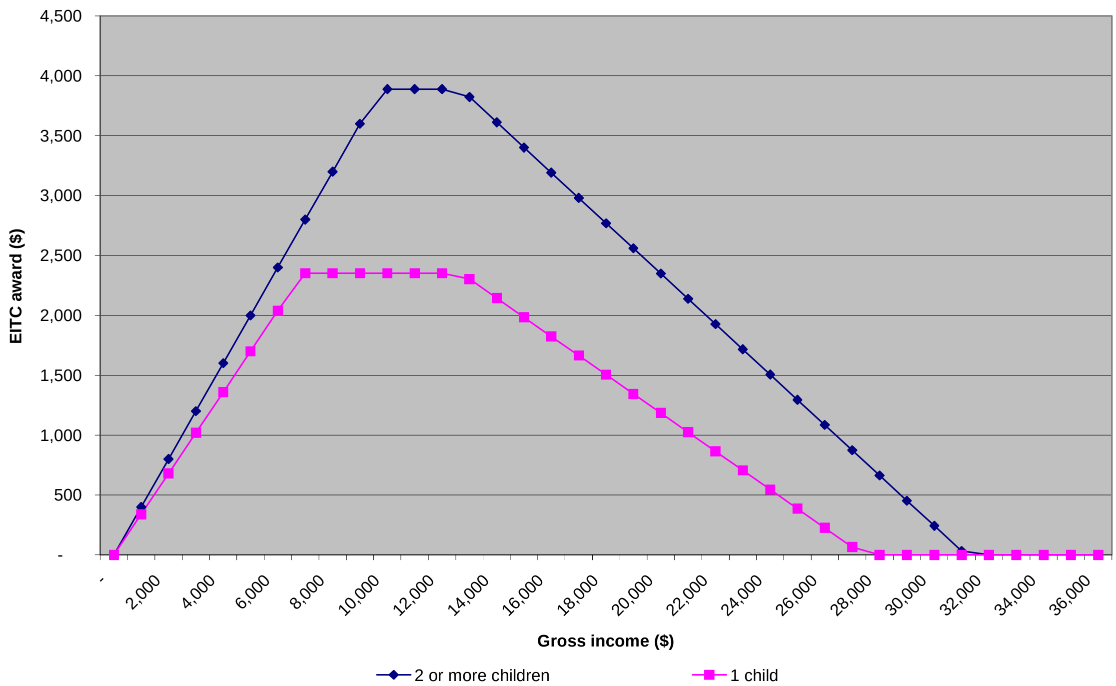
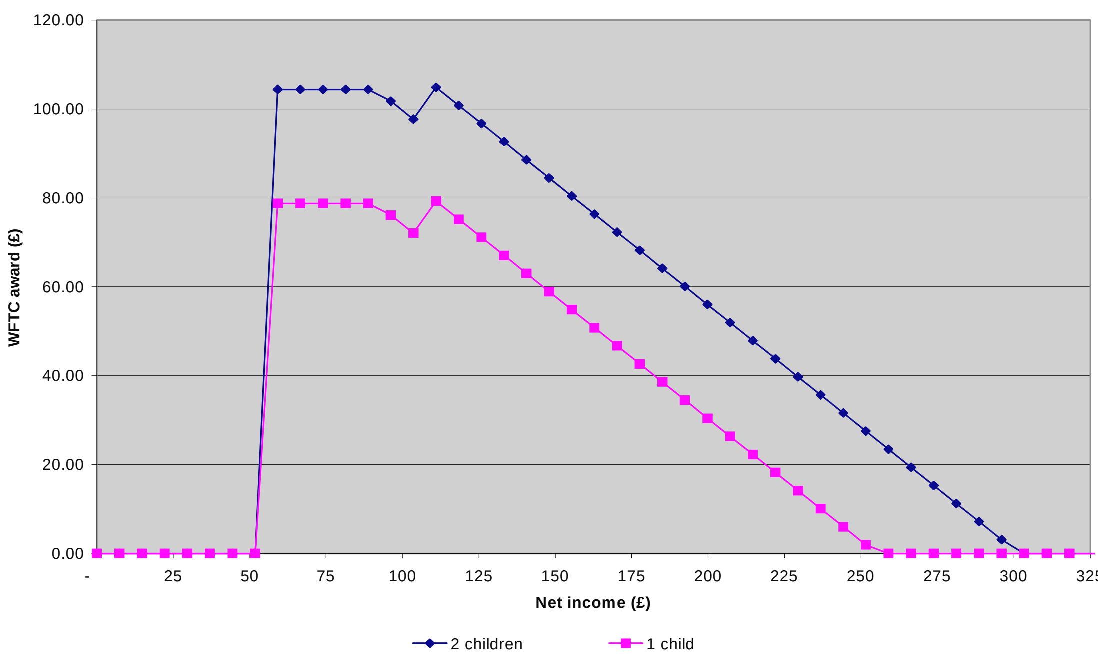
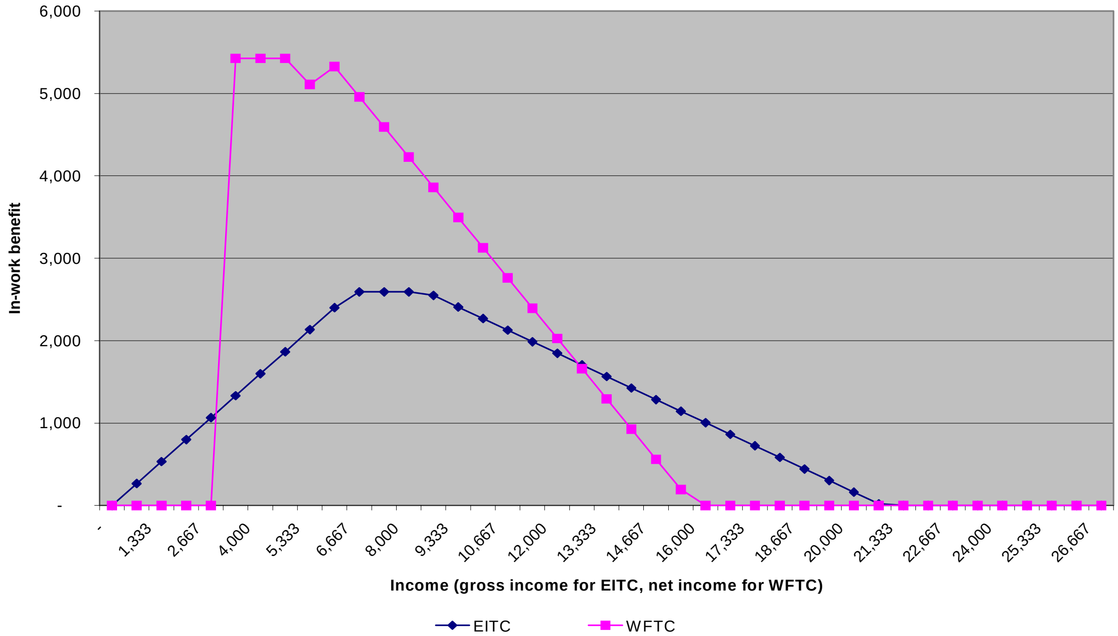


Figure 2. WFTC weekly award, June 2000



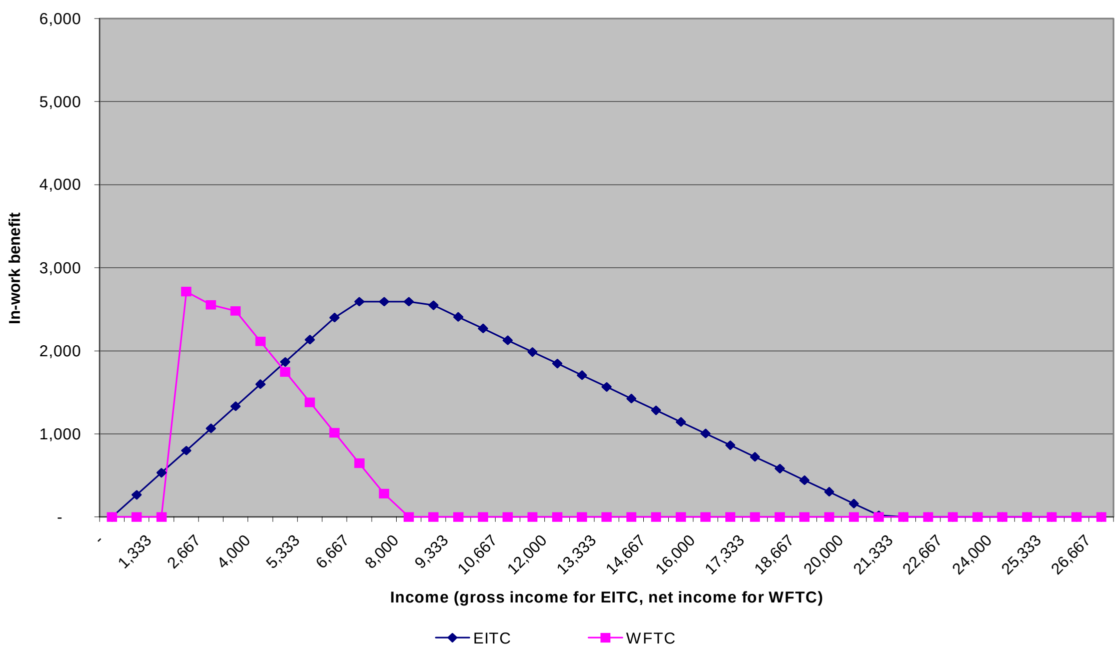
Notes: assumes hourly wage of £3.60 so WFTC eligibility reached at £57.60/week.

Figure 3. Annual WFTC and EITC payments, 2 WFTC claims in a year (£1/$1.50)



Notes: assumes hourly wage of £3.60 so WFTC eligibility reached just past £3,000.

Figure 4. Annual WFTC and EITC payments, 1 WFTC claim in a year (£1/$1.50)



Notes: assumes hourly wage of £3.60 so WFTC eligibility reached just past £3,000..

Figure 5. Stacked budget constraint, US. TANF payments as in Florida

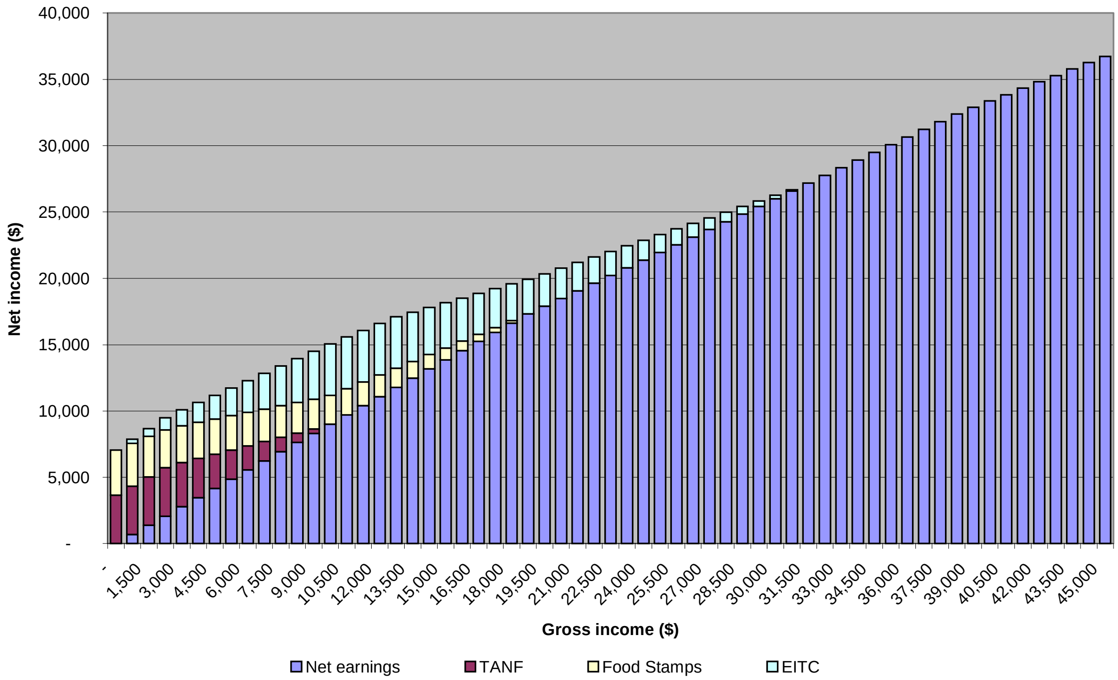
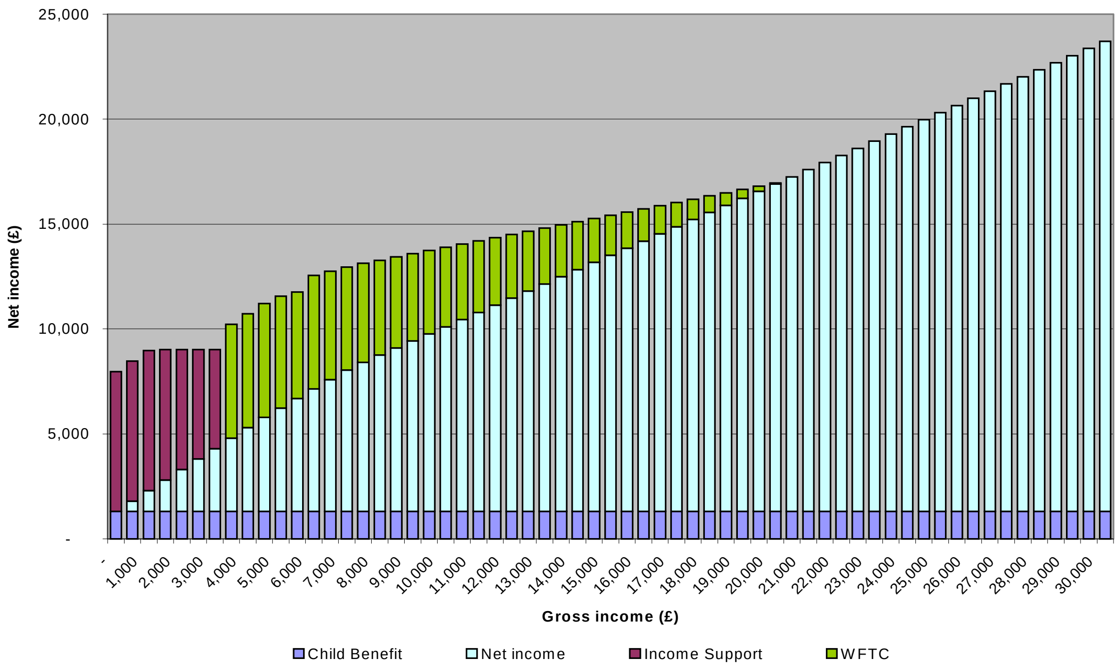


Figure 6. Stacked budget constraint, UK



Notes: assumes hourly wage of £3.60 so WFTC eligibility reached at £3,000.

Figure 7. Budget constraint for lone parent with 2 children, US

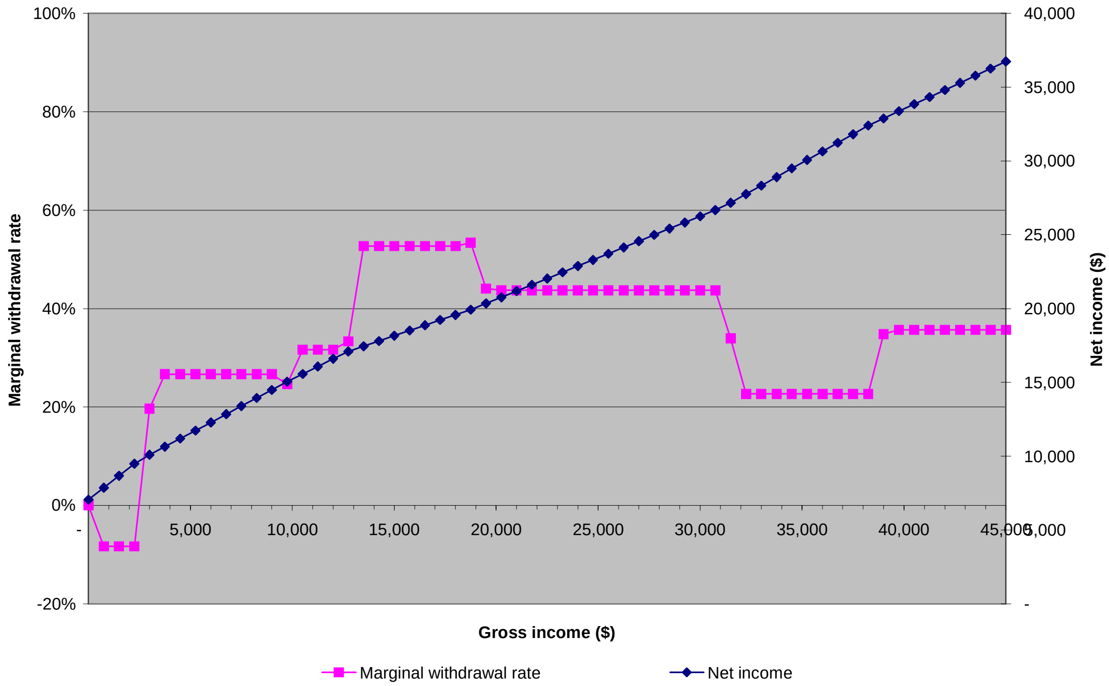
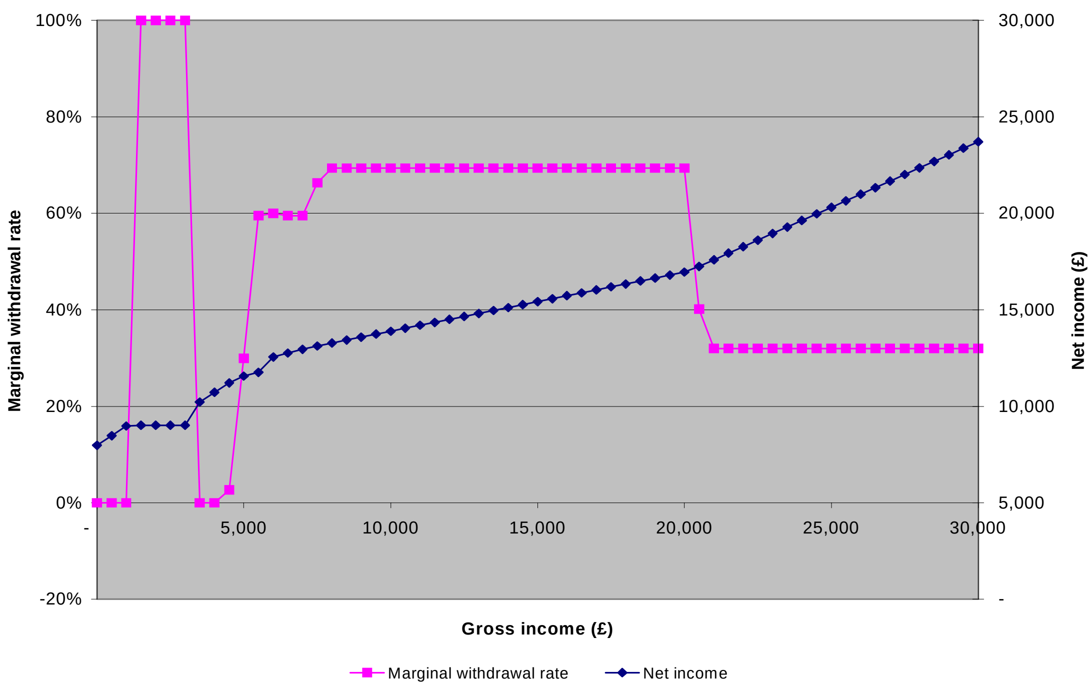


Figure 8. Budget constraint for lone parent with 2 children, UK



Notes: assumes hourly wage of £3.60 so WFTC eligibility reached just past £3,000.

Figure 9. Net financial support as % earnings, lone parent with 2 children (£1/$1.50)

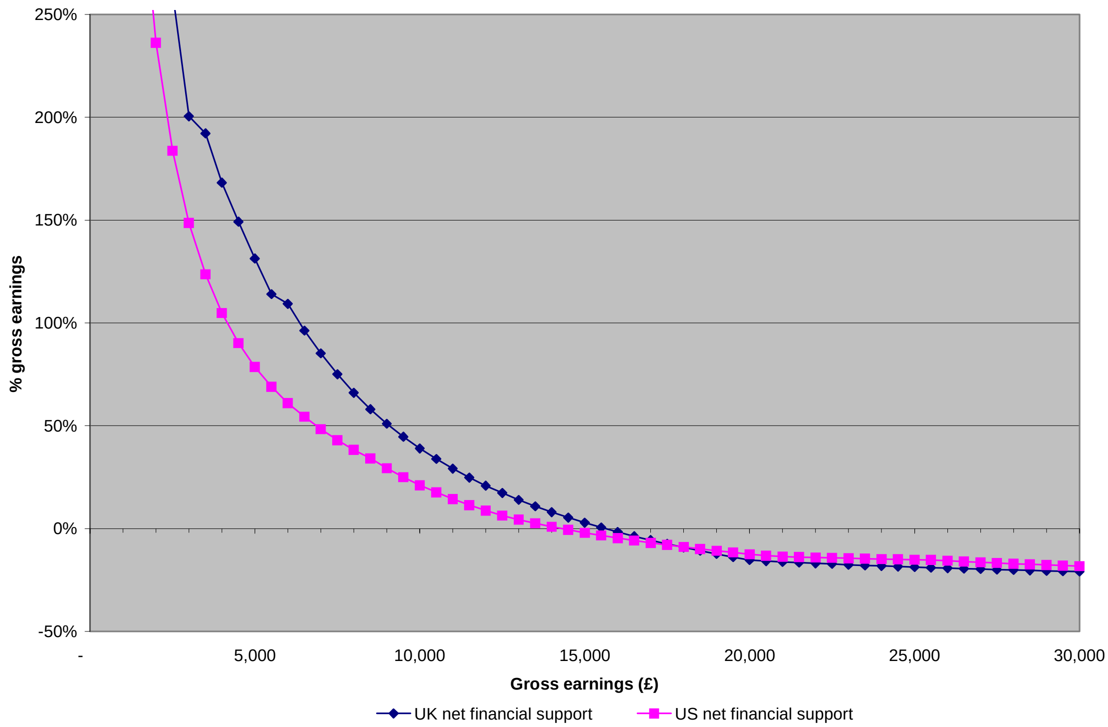


Figure 10. Budget sets of lone parent with 2 children in the UK and US as fraction of median male full-time earnings

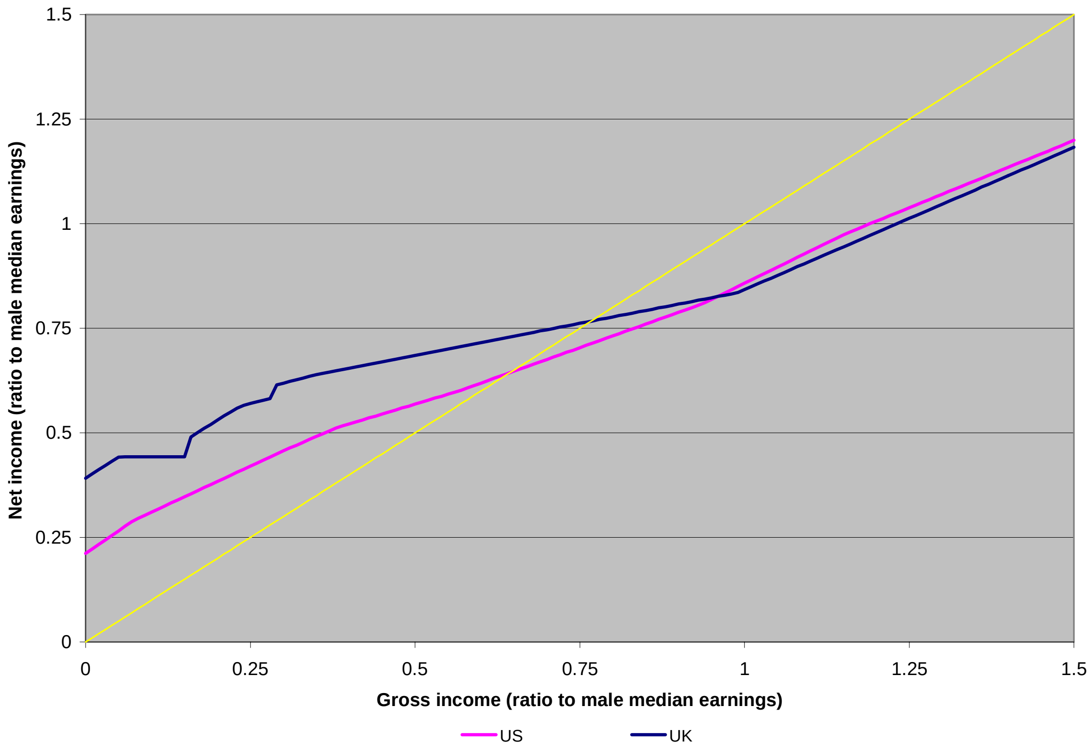


Figure 11. Marginal withdrawal rates of lone parent with 2 children in the UK and US as fraction of median male full-time earnings

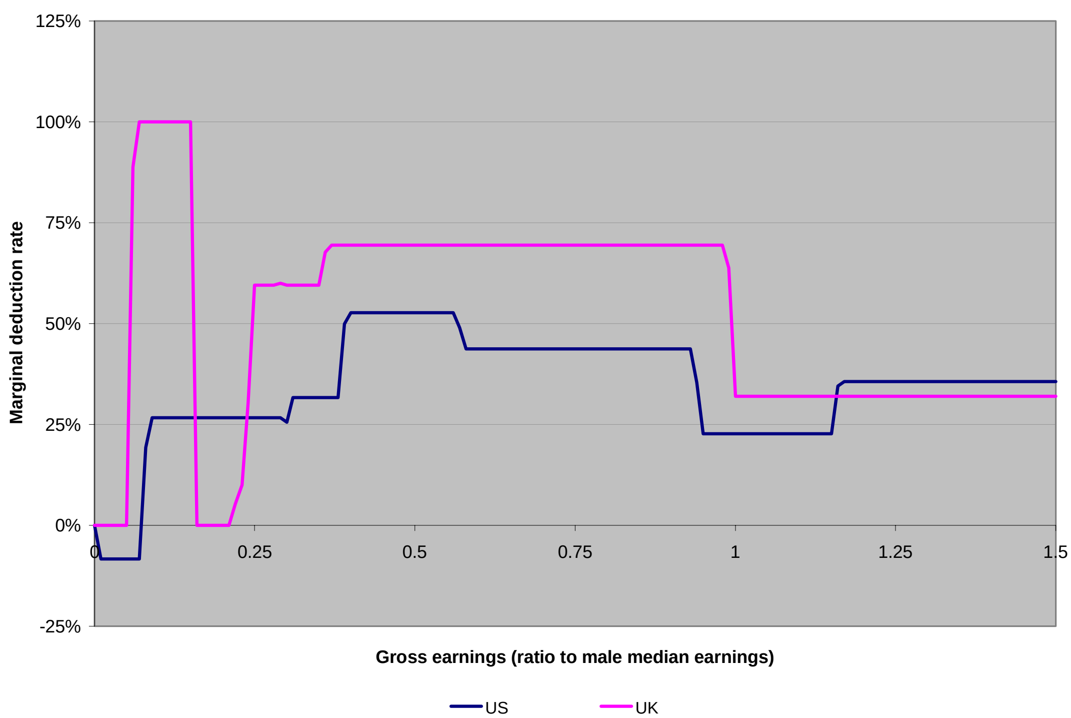


Figure 12. Budget sets of lone parent with 2 children in the UK and US as fraction of poverty line for same family

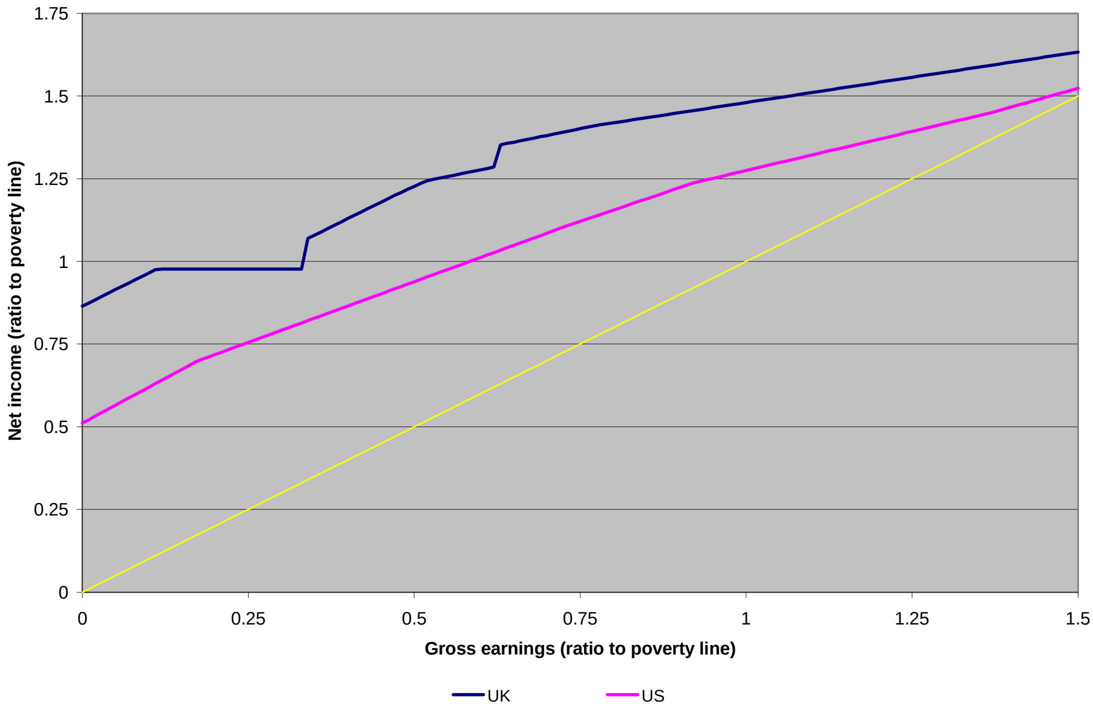


Figure 13. Marginal withdrawal rates of lone parent with 2 children in the UK and US as fraction of poverty line for same family

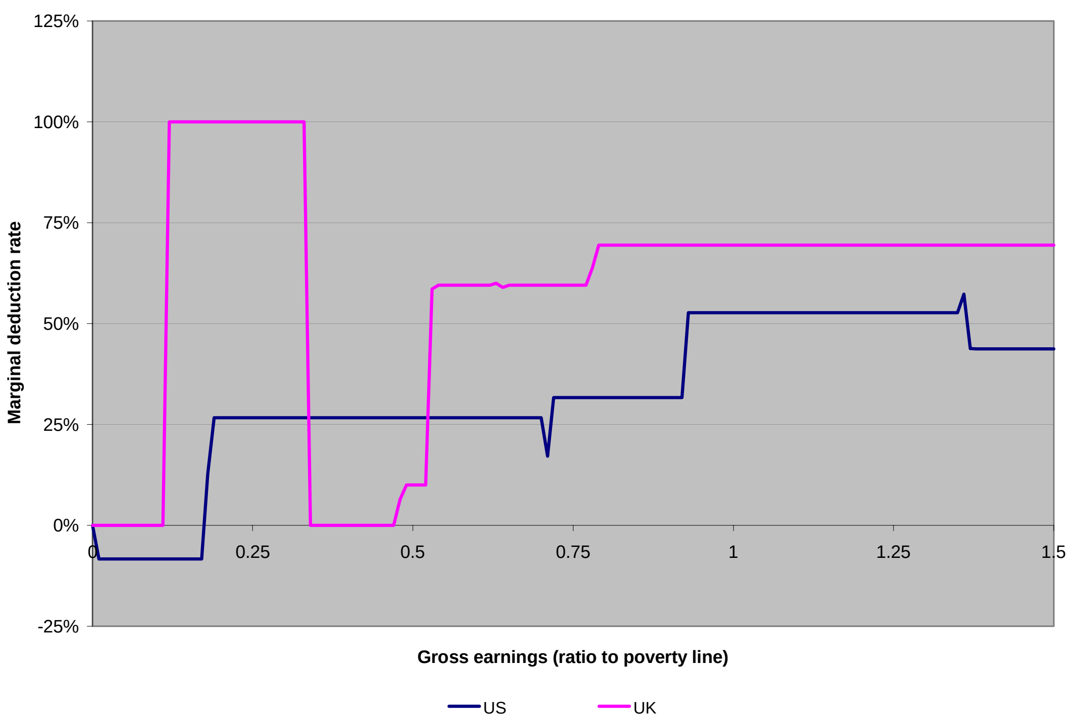


Figure 14. Budget constraint for lone parent with 2 children, US, no EITC

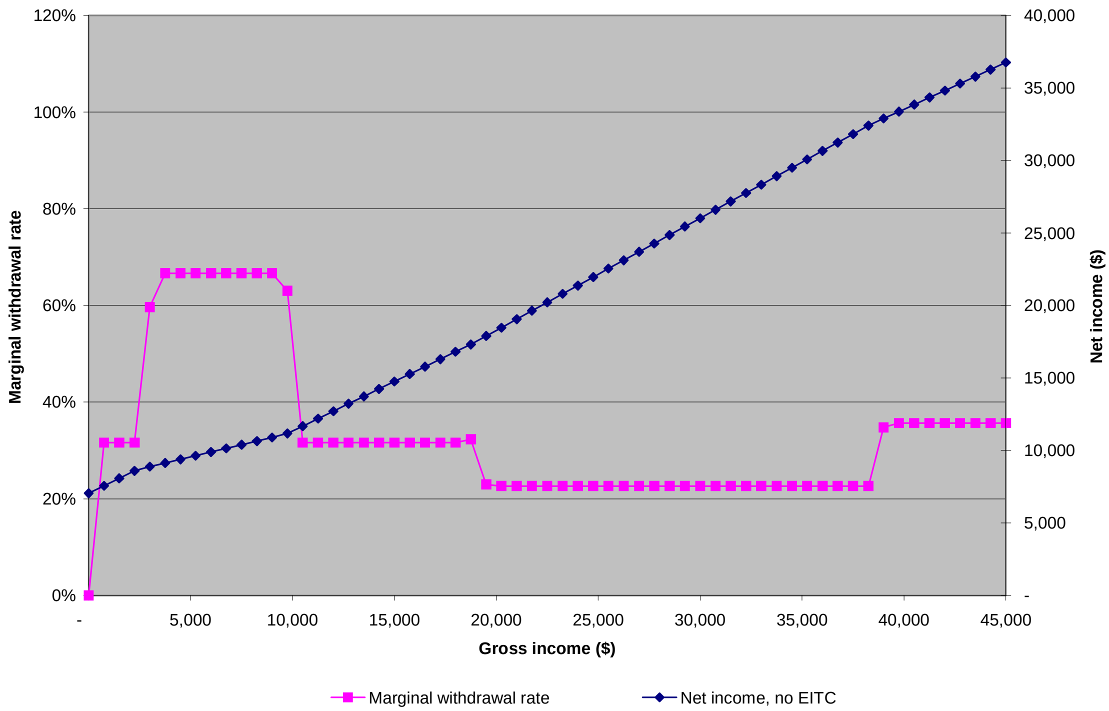


Figure 15. Budget constraint for lone parent with 2 children, UK, no WFTC

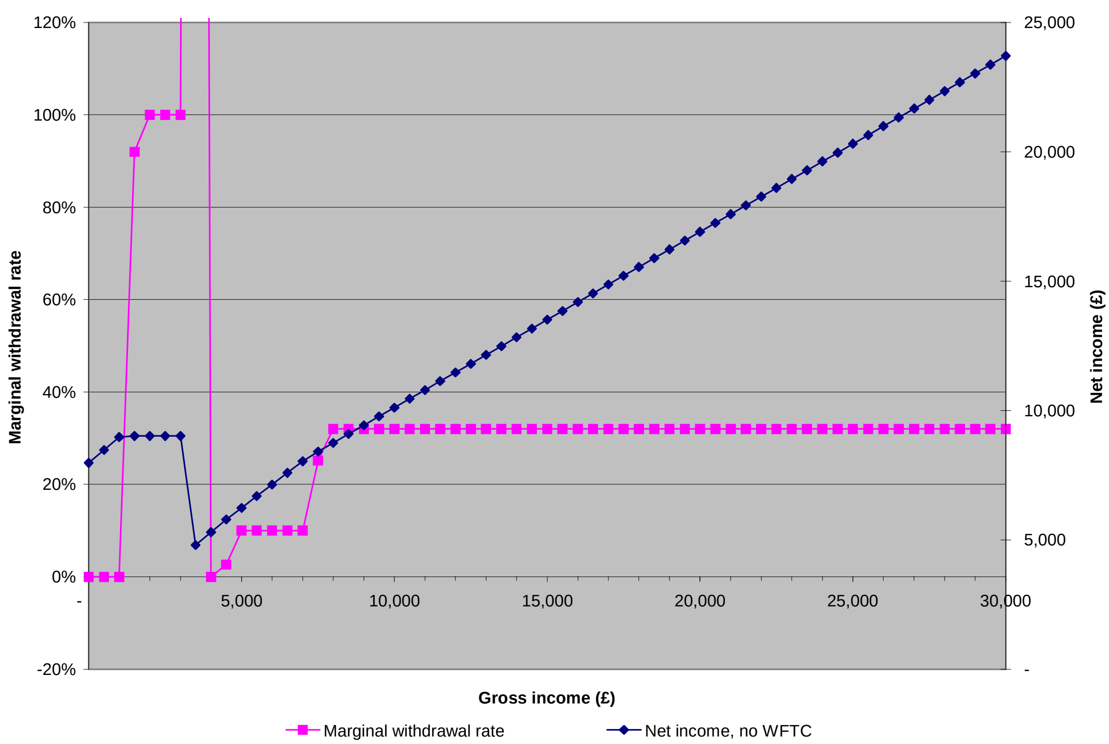


Figure 16. Budget constraint for UK lone parent with 2 children and maximum childcare tax credit award.

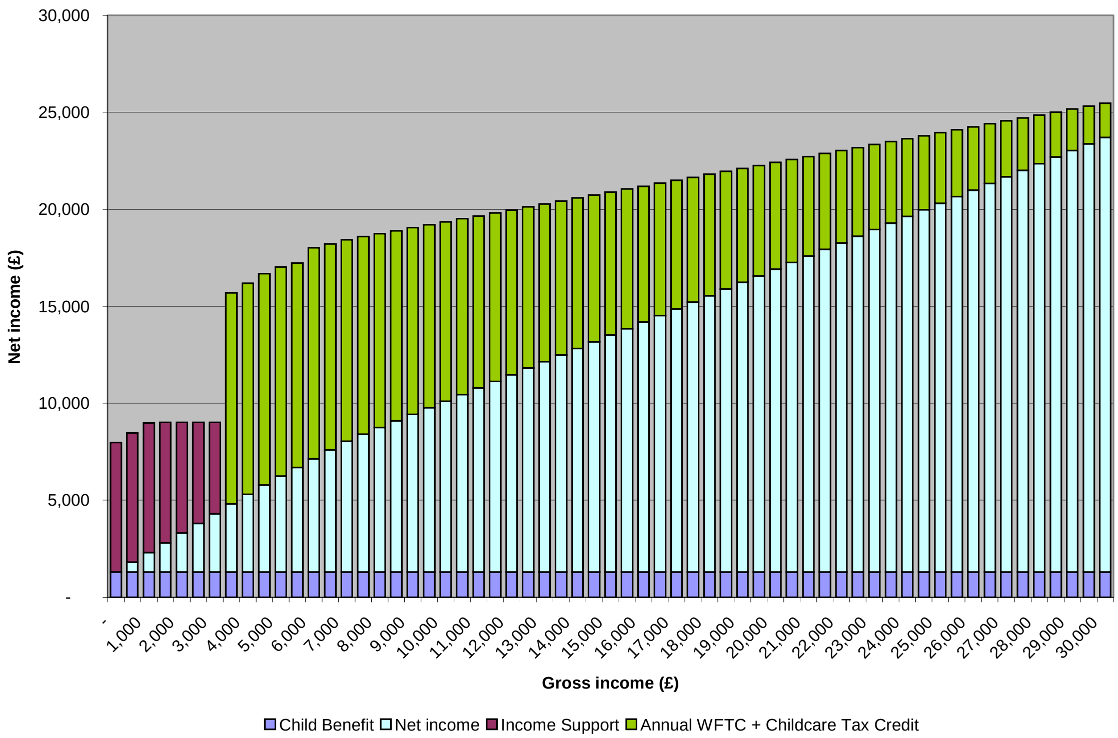


Figure 17. In-work benefit caseloads in UK and US, 1971-2000 (000's)

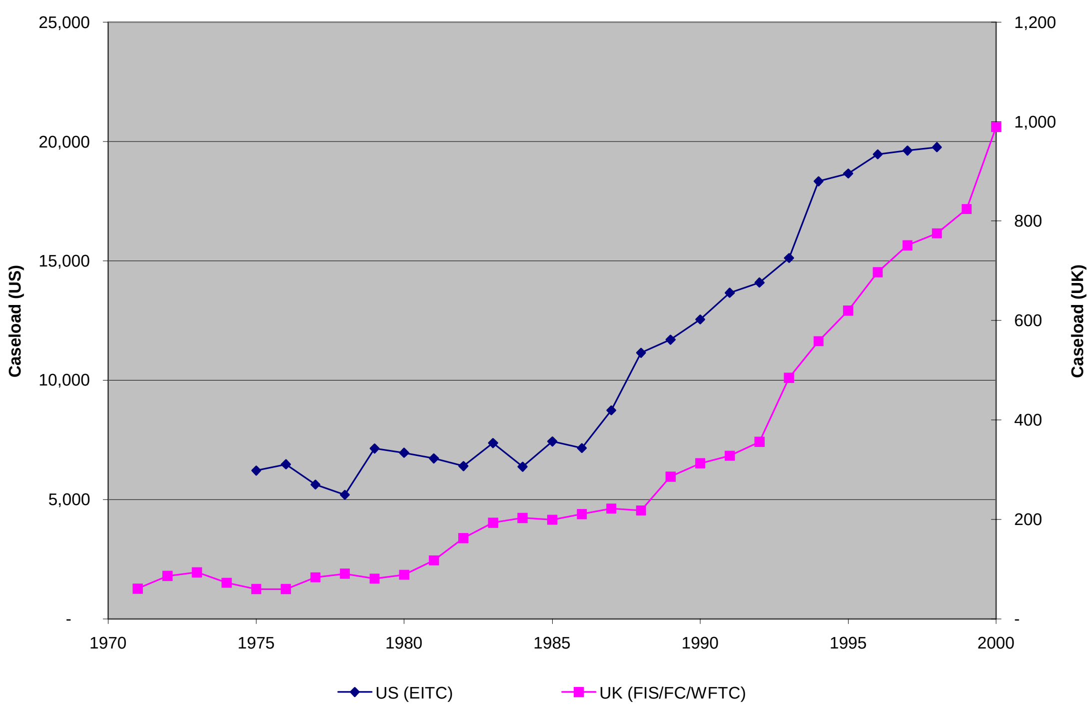


Table 1. Timeline of developments in in-work benefits in the UK and US.

	US	UK
1971		Family Income Supplement (FIS) introduced as a means-tested in-work benefit.
1975	Earned Income Tax Credit introduced with maximum credit of $400	
1987	Increase in EITC generosity and credit rate.	
1988		FIS replaced by Family Credit (FC) with increased generosity and lower MWRs (most instances of MWRs > 100% were removed). 24 hours work a week needed to qualify.
1991	Increase in EITC generosity. Separate rate for two or more children. Requirement for applicants to earn more than received in welfare removed. EITC no longer counted in means-tested programs' income calculations.	
1992		Qualifying conditions reduced to 16 hours a week.
1994	Substantial increase in EITC generosity, particularly for families with 2 or more children. EITC for workers without children introduced.	
1995		Extra credit introduced for working more than 30 hours a week
1996	Substantial increase in EITC generosity, particularly for families with 2 or more children. PRWORA reformed AFDC/TANF.	
1999		Working Families' Tax Credit replaces FC with increased generosity, longer phase-out portion and more generous support for childcare.
2000		Increase in generosity. Credit paid through the wage packet.

Table 2. State-level EITCs as of June 2000.

State	Value of credit (as percentage of federal EITC)	Federal EITC claimants, 1997
Refundable credits		
Colorado	10%	241,770
District of Columbia	10%	53,616
Kansas	10%	149,335
Maryland	10% (15% in 2001)	336,829
Massachusetts	10% (15% in 2001)	285,476
Minnesota	15% to 46%, depending on earnings	221,730
New York	20% (30% in 2003)	1,302,604
Vermont	32%	37,501
Wisconsin	4%/14%/43% for families with 1/2/3 children	260,311
Non-refundable credits		
Illinois	5%	765,955
Iowa	6.5%	153,575
Maine	5%	82,894
Oregon	5%	204,819
Rhode Island	26%	60,085

Source: Johnson (1999) & Johnson (2000).

Table 3. US federal individual income tax parameters for families with children for 2000

Tax rates	
If annual taxable income is:	**Then income tax equals:**
Heads of households	
$0 - $35,150	15% of taxable income
$35,150 - $90,800	$5,272.50 + 28% of the amount over $35,150
$90,800 - $147,050	$20,854.50 + 31% of the amount over $90,800
$147,050 - $288,350	$38,292 + 36% of the amount over $147,050
Over $288,350	$89,160 + 39.6% of the amount over $288,350
Married couples filing jointly	
$0 - $43,850	15% of taxable income
$43,850 - $105,950	$6,557.50 + 28% of the amount over $43,850
$105,950 - $161,450	$23,965.50 + 31% of the amount over $105,950.
$161,450 - $288,350	$41,170.50 + 36% of the amount over $161,450
Over $288,350	$86,854.50 + 39.6% of the amount over $288,350
Tax allowances	
Head of household	$6,450
Married couple filing jointly	$7,350
Deductions	$2,800 per dependent
Child tax credit	$500 per child
Social security tax (payroll tax)	
$0 - $72,600	7.65% of incomes up to $72,600.
Over $72,600	$5553.90 + 1.45% of the amount above $72,600

Source: Various IRS forms and tables for 2000.
Note: Taxable income is income less allowance less deductions. The child tax credit reduces tax liability by $500 per child. The overall effect is that a lone parent with 2 children pays no federal income tax on an annual income of $18,000.

Table 4. UK income tax parameters for families with children for 2000

Tax rates	
If annual taxable income is:	**Then income tax equals:**
£0 - £1,520	10% of taxable income
£1,520 - £28,400	£152 + 22% of the amount over £1,520
Over £28,400	£6,065.60 + 40% of the amount over £28.400
Tax allowance	
Individual	£4,385
Children's tax credit	£442 per family with children (from 2001)
National insurance contributions	
If weekly income is:	**Then contributions are:**
£0 - £76	Nothing
£76 - £535	10% of income over £76
Over £535	

Source: Various IR publications.

Note: Taxable income is income less an allowance. Married couples file separately. The children's tax credit reduces tax liability by £442 where there are children in the family, but the value is reduced if there is a higher-rate taxpayer.

Table 5. Monthly total income for a lone mother with two children under four work scenarios in 12 US States ($)

	Work scenario			
State	No work	Part-time, minimum wage	Full-time, minimum wage	Full-time, $9/hour
Alabama	479	894	1,198	1,442
California	825	1,226	1,449	1,512
Colorado	674	1,041	1,243	1,478
Florida	618	1,036	1,275	1,489
Massachusetts	825	1,209	1,448	1,522
Michigan	743	1,082	1,257	1,470
Minnesota	763	1,168	1,409	1,475
Mississippi	435	905	1,215	1,477
New Jersey	726	1,066	1,300	1,491
New York	833	1,205	1,447	1,536
Texas	503	901	1,233	1,482
Washington	812	1,120	1,344	1,482
Alabama	479	894	1,198	1,442

Notes: Total income includes earnings, TANF benefit, cash value of Food Stamps, federal EITC, state tax credits less employee payroll taxes and federal and state income tax. Minimum wage was $5.15 in 1998. Assumes 4.3 weeks/month. Assumes no childcare costs.
Source: Table 2 of Acs et al (1998).

Table 6. Average withdrawal rates and replacement ratios for a lone mother with two children moving into work under three work scenarios in 12 US States

	Average withdrawal rate			Replacement ratio		
	Work scenario			Work scenario		
State	Part-time, minimum wage	Full-time, minimum wage	Full-time, $9/hour	Part-time, minimum wage	Full-time, minimum wage	Full-time, $9/hour
Alabama	6%	7%	29%	54%	40%	33%
California	9%	19%	49%	67%	57%	55%
Colorado	17%	27%	41%	65%	54%	46%
Florida	6%	15%	36%	60%	48%	42%
Massachusetts	13%	20%	49%	68%	57%	54%
Michigan	23%	34%	46%	69%	59%	51%
Minnesota	9%	17%	47%	65%	54%	52%
Mississippi	-6%	-1%	23%	48%	36%	29%
New Jersey	23%	26%	44%	68%	56%	49%
New York	16%	21%	48%	69%	58%	54%
Texas	10%	6%	28%	56%	41%	34%
Washington	30%	31%	51%	73%	60%	55%

Notes: Author's calculations from Table 5. Average withdrawal rate is: 1- (Income in work – Income out of work)/ Gross earnings.

Table 7. Average withdrawal rates for a lone mother with two children increasing her work effort in US 12 States

	Work scenario		
	Compared to part-time, minimum wage:		Compared to full-time, minimum wage:
State	Full-time, minimum wage	Full-time, $9/hour	Full-time, $9/hour
Alabama	8%	40%	58%
California	33%	69%	89%
Colorado	39%	52%	59%
Florida	28%	50%	63%
Massachusetts	28%	66%	87%
Michigan	47%	57%	63%
Minnesota	27%	66%	89%
Mississippi	7%	37%	55%
New Jersey	30%	53%	67%
New York	27%	64%	85%
Texas	0%	36%	57%
Washington	33%	60%	76%

Notes: Author's calculations from Table 5.

Table 8. Monthly income for low-income families under four work scenarios in UK

	Work scenario			
	No work	Part-time, minimum wage	Full-time, minimum wage	Full-time, £6.50/hour
Lone parent:				
One child	425	729	922	1,056
Two children	560	885	1,078	1,213
Couple family:				
One child	555	729	922	1,056
Two children	690	885	1,078	1,213

Notes: Author's calculations. Total income includes earnings, WFTC or IS, Child Benefit less employee National Insurance Contributions and income tax. Assumes minimum wage of £3.70. Assumes 4.3 weeks/month. No childcare costs.

Table 9. Average withdrawal rates and replacement ratios for low-income families moving into work under three work scenarios in UK

	Average withdrawal rate			Replacement ratio		
	Work scenario			Work scenario		
	Part-time, minimum wage	Full-time, minimum wage	Full-time, £6.50/hr	Part-time, minimum wage	Full-time, minimum wage	Full-time, £6.50/hr
Lone parent:						
One child	5%	11%	36%	58%	46%	40%
Two children	-2%	7%	33%	63%	52%	46%
Couple family:						
One child	45%	34%	49%	76%	60%	53%
Two children	39%	30%	47%	78%	64%	57%

Notes: As above. Average withdrawal rate is: 1- (Income in work – Income out of work)/ Gross earnings.

Table 10. Average withdrawal rates for low-income families increasing work effort in UK

	Work scenario		
	Compared to part-time, minimum wage:		Compared to full-time, minimum wage:
	Full-time, minimum wage	Full-time, £6.50/hour	Full-time, £6.50/hour
Lone parent:			
One child	20%	51%	69%
Two children	20%	51%	69%
Couple family:			
One child	20%	51%	69%
Two children	20%	51%	69%

Notes: As above.

Table 11. Average withdrawal rates and replacement ratios for a lone mother with two children moving into work under three work scenarios in 12 US States, no EITC

	Average withdrawal rate			Replacement ratio		
	Work scenario			Work scenario		
State	Part-time, minimum wage	Full-time, minimum wage	Full-time, $9/hour	Part-time, minimum wage	Full-time, minimum wage	Full-time, $9/hour
Alabama	46%	46%	45%	67%	53%	39%
California	50%	59%	66%	79%	72%	64%
Colorado	57%	66%	57%	78%	72%	54%
Florida	46%	54%	52%	72%	64%	49%
Massachusetts	57%	62%	67%	81%	74%	65%
Michigan	63%	73%	64%	82%	78%	60%
Minnesota	55%	62%	67%	79%	72%	63%
Mississippi	34%	39%	40%	60%	48%	35%
New Jersey	64%	66%	61%	82%	73%	58%
New York	64%	68%	68%	84%	77%	66%
Texas	50%	45%	45%	69%	54%	40%
Washington	71%	71%	67%	86%	78%	65%

Notes: As Table 5. Average withdrawal rate is: 1- (Income in work – Income out of work)/ Gross earnings.

Table 12. Average withdrawal rates and replacement ratios for low-income families moving into work under three work scenarios in the UK, no WFTC

	Average withdrawal rate			Replacement ratio		
	Work scenario			Work scenario		
	Part-time, minimum wage	Full-time, minimum wage	Full-time, £6.50/hr	Part-time, minimum wage	Full-time, minimum wage	Full-time, £6.50/hr
Lone parent:						
One child	112%	68%	51%	110%	70%	47%
Two children	141%	83%	60%	130%	86%	59%
Couple family:						
One child	153%	91%	64%	143%	92%	61%
Two children	182%	107%	73%	160%	106%	73%

Notes: As Table 8. Average withdrawal rate is: 1- (Income in work – Income out of work)/ Gross earnings.

Table 13. In-work benefits as a % of the gain to work for a lone mother with two children under three work scenarios in US 12 States

	Work scenario		
State	Part-time, minimum wage	Full-time, minimum wage	Full-time, $9/hour
Alabama	42%	42%	23%
California	44%	49%	34%
Colorado	49%	53%	28%
Florida	42%	46%	26%
Massachusetts	51%	53%	36%
Michigan	52%	59%	32%
Minnesota	51%	54%	38%
Mississippi	38%	39%	22%
New Jersey	53%	54%	30%
New York	57%	60%	39%
Texas	44%	42%	24%
Washington	58%	58%	34%

Notes: As Table 5.

Table 14. In-work benefits as a % of the gain to work for low-income families moving into work under three work scenarios in the UK

	Work scenario		
	Part-time, minimum wage	Full-time, minimum wage	Full-time, £6.50/hour
Lone parent:			
One child	113%	64%	24%
Two children	140%	82%	40%
Couple family:			
One child	197%	86%	30%
Two children	233%	109%	50%

Notes: As Table 8.

Table 15. Monthly income for low-income families receiving Housing Benefit and Council Tax Benefit under four work scenarios in UK

	Work scenario			
	No work	Part-time, minimum wage	Full-time, minimum wage	Full-time, £6.50/hour
Lone parent:				
One child	651	788	922	1,056
Two children	804	944	1,078	1,213
Couple family:				
One child	794	857	928	1,056
Two children	948	1,014	1,086	1,213

Notes: As above. Income is shown before deducting rent and council tax and assumes average rents and council tax payments for HB and CTB calculations.

Table 16. Average withdrawal rates and replacement ratios for low-income families receiving Housing Benefit and Council Tax Benefit moving into work under three work scenarios in UK

	Average withdrawal rate			Replacement ratio		
	Work scenario			Work scenario		
	Part-time, minimum wage	Full-time, minimum wage	Full-time, £6.50/hr	Part-time, minimum wage	Full-time, minimum wage	Full-time, £6.50/hr
Lone parent:						
One child	57%	51%	59%	83%	71%	62%
Two children	56%	51%	58%	85%	75%	66%
Couple family:						
One child	80%	76%	73%	93%	86%	75%
Two children	79%	75%	73%	94%	87%	78%

Notes: As above.

Table 17. Average withdrawal rates for low-income families receiving Housing Benefit and Council Tax Benefit increasing work effort in UK

	Work scenario		
	Compared to part-time, minimum wage:		Compared to full-time, minimum wage:
	Full-time, minimum wage	Full-time, £6.50/hour	Full-time, £6.50/hour
Lone parent:			
One child	44%	59%	69%
Two children	44%	59%	69%
Couple family:			
One child	70%	69%	69%
Two children	70%	69%	69%

Notes: As above.

Table 18. Detail of WFTC and EITC operation

	Working Families Tax Credit (from June 2000)	**Earned Income Tax Credit (2000)**
Eligibility		
Eligibility	Must work more than 16 hours a week, have dependent children (under 16 or under 19 and in full-time education), have less than £8,000 capital. Couples need to claim jointly; need not be married. Extension to those without dependent children proposed alongside an integrated child credit.	Must have positive earnings in past year and annual investment income under $2,350. Married couples need to file a joint tax return, unmarried couples file separately. Parents need to have a "qualifying" child (either theirs or their spouse's, or any other child that was cared for all year). "Children" are under 19 or under 24 and a student, or permanently and totally disabled. Where a child potentially qualifies two unmarried adults for EITC, only the adult with the highest income can apply (this includes multiple tax unit-households).
Structure		
Value of basic credit	Credit is weekly. Basic credit of £53.15 plus possible 30 hour credit of £11.25 plus credits for each child at £25.60 or £26.35 for 16-18s. Childcare tax credit is supplementary to this.	Credit is annual and is a fraction of annual income up to a maximum level of $353/$2,353/$3,888 for families with no, 1 or more than 1 children.
Tapering	Beyond threshold of £91.45, tapered at 55%.	Phase-in threshold applies a 7.65% /34%/40% credit (for no, 1, more than 1 children) to income until maximum credit reached. Beyond threshold of $12,690 ($5,770 for no children), tapered at 7.65%/15.98%/21.06% so that runs out at $10,380/$27,413/$31,152.
Interaction with other parts of tax and benefit system		
Definition of income	Net income (i.e. income after income tax and national insurance). Self-employed: same definition of "income" as for other tax liabilities.	Gross earnings or "modified adjusted gross income" if "modified adjusted gross income" is higher and claimant is on the taper ("modified adjusted gross income" is income minus standard deductions for tax purposes). Self-employed: same definition of "income" as for other tax liabilities.
Exclusions from the definition of income	Child Benefit, Statutory Maternity Pay, Attendance Allowance, maintenance payments, Housing Benefit and Council Tax Benefit awards	TANF & Food Stamps are not taxable.

Awards count as income for	Housing Benefit and Council Tax Benefit awards	Federal law prohibits EITC to be treated as income for purpose of Medicaid, SSI, Food Stamps and low-income housing. Since 1991, EITC did not count for AFDC assessment; States can now count EITC when determining TANF awards.
Assessment and payment mechanism		
Assessment	Assessed on average weekly income in "assessment period" prior to claim. Length of "assessment period" depends on frequency of claimant's earnings: 7 weeks for weekly payments, 8 weeks for fortnightly, 16 weeks for 4-weekly, 4 months for monthly payments. Estimated earnings used for new workers.	Assessed at year-end on past year's income.
Payable	Weekly award fixed for 26 weeks (unless family status changes). Paid through wage packet unless non-earner in couple elects to receive it or if self-employed. Timing of payments aligned with timing of wages, so if worker paid monthly in arrears, credit will be paid monthly in arrears. Non-earners paid fortnightly.	Annual award is a refund on annual tax liability with any excess paid as a lump-sum. Families have to file by April 15 each year. Up to $1,418 can be paid in advance through the wage packet for claimants that have federal income tax withheld from wages. Few elect for this option.
Paid to	Couples decide who receives it. If couple cannot agree, then Inland Revenue will probably pay to the main carer (CPAG, 2000).	Married couples who claim the EITC have to file a joint tax return. Their EITC credit reduces the joint tax liability. They nominate who receives the payable part of the credit. See "eligibility" for other rules on who can claim in non-married couples.

Sources: For WFTC: CPAG (2000), IR (2000a&b). For EITC: IRS (1999a&b&c), Committee on Ways and Means (1998).