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Child Support Reform: Some Analysis of the 1999 White Paper*

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Abstract

This paper uses a sample of lone mothers (and former lone mothers who are now repartnered) drawn from the 1997 Family Resources Survey to analyse the potential effects of reforming the UK system of Child Support. The main deficiency of the data is that non-resident fathers cannot be matched to the mothers in the data and this is overcome by exploiting information from another dataset which gives the joint distribution of the characteristics of separated parents. The effects of reforming the Child Support system is simulated for the amount of maintenance liabilities, the amount paid and the net incomes of households containing mothers with care and households containing non-resident fathers. The likely effects of the reform are simulated at various levels of compliance. The analysis highlights the need for further research into the incentive effects of Child Support on individual behaviour.

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1. Introduction

Child support reform has attracted considerable attention in the UK, the US and elsewhere in recent years. The original motivation for reform in both the UK and the US came from the growing number of lone parents and their increasing reliance on welfare payments. In spite of the importance of the issue, there is little research that analyses the impact of child support reform on the level of child support paid or on other aspects of behaviour. In the US, research reported in Garfinkel *et al* (1999a) looks at the effects of child support on a variety of aspects of the behaviour of non-resident fathers but has little to say about the simple distributional effects of reforms¹. In the UK, Bingley *et al* (1995, 1997), and Preston and Walker (1999) investigate the impact that child support has on the labour supply behaviour of lone mothers through its effect on the budget constraints that they face but are silent on child support behaviour itself.

Widespread discontent with the way in which earlier UK reforms in 1993 have worked has renewed pressure for further change and the government's proposals are now detailed in a recent White Paper (HMSO (1999)). The present paper is a first step towards analysing the effects of the proposed reforms against four central objectives. First, to raise the degree of compliance of Child Support payments with the level of assessed liability. Second, to shift some of the burden of support of the children of lone mothers from benefit payments to the non-resident fathers. Third, to reduce the work disincentives implicit in the current Child Support formula and the associated Child Support disregards in the benefit system. Finally, and as a consequence of the first three goals, to lower the incidence of poverty among children. There are also important questions concerning the impact on other aspects of behaviour, such as, fertility and partnership decisions, which are not directly addressed here.²

The reform itself is complex and the effects on household net incomes reflect the interactions between projected changes in child support payments and the welfare system. This analysis is based on detailed modelling of the changes on recent sample

¹ See also Hu (1999) for an analysis of the effects of child support on work incentives in the US. Corden (1999) provides an outline comparison of child support systems across European countries.

² These issues will be addressed in future work that is being funded directly by the Nuffield Foundation.

survey data that is reasonably representative of the population³. The principle data source is a sample of lone mothers (and former lone mothers who are now repartnered) drawn from the 1997 Family Resources Survey.⁴ The main deficiency of the data is that it is not possible to match non-resident fathers to the mothers in the data, but this is overcome by exploiting information from another survey on the joint distribution of the characteristics of separated parents. The analysis also allows for other important changes that are likely to affect the impact of the reform including the recent imposition of a minimum wage and the extension of the main in-work transfer programme (Family Credit, now known as Working Families' Tax Credit).

We simulate the effects of the Child Support reforms on the size of maintenance liabilities, the amount paid and the net incomes of both the household containing the mother with care and the households containing the non-resident father. Since the reform specifically aims to promote compliance, the likely effects of changes in liability on compliance are examined. Another mechanism for promoting compliance is to be a disregard for Child Support in the Income Support system, which will give the parent with care a positive financial incentive to cooperate with the CSA. The downside of such a disregard is that it may have adverse effects on work incentives. Thus, in addition to looking at the impact on net incomes, the effect of reform on work incentives is examined using a simple labour supply model.

The main conclusion is that compliance effects are likely to be very important. The effects of the reform on child poverty are beneficial even though, on average, Child Support liabilities fall unless this is offset by a considerable rise in compliance. This result is driven by the removal in the reforms of any exemptions to making a minimum payment and the introduction of an Income Support disregard which will allow the majority of mothers with care (those receiving Income Support) to see some gain in net income from Child Support payments.

³ The White Paper contains some predictions that have been obtained from applying the reforms to administrative Child Support Agency data. While this administrative data provides information on the non-resident father that is not available in the FRS data used here, the cases dealt with by the CSA are not a random sample of all lone parents. For example, the CSA deals with all those cases where the parent with care is on Income Support (or Housing Benefit or Family Credit) and those not on Income Support who ask for the CSA's assistance. Thus, it seems likely that the typical CSA client will have a substantially lower level of Child Support entitlement than the average individual eligible for Child Support.

2. The Reform

The contrast with the US is interesting. Since the 1996 welfare reforms in the US, each state has been allowed to design its own child support system and states have divided into two broad camps. In the *income-shares* camp, child support is a proportion of the combined incomes of both natural parents. The current UK system broadly falls into this category, with the liability of the non-resident parent prorated between the parents according to each share of their combined incomes. In contrast, the proposed reformed system falls into the *percent-of-income* camp where child support is a percentage of the non-resident parent's income with the percentage varying with the number of children.

The existing system of child support is described in some detail in CPAG (1999) and here their notation is used to facilitate comparison between our summary exposition and the fine details. The steps in the formula can be compressed into the following single relationship, which is broadly based around the “proposed amount” (P) for the parent with care (PWC) and non-resident parent (NRP):

$$P = 0.5 * F \quad \text{if } F + G < 2A$$

$$P = c * F + (1 - 2 * c) * A * (F / (F + G)) \quad \text{if } F + G \geq 2A$$

where: $F = D - B$ ($= 0$ if NRP or new partner on IS or JSA) where D = net income for NRP, and B = exempt income for NRP; $G = E - C$ ($= 0$ if PWC or new partner on IS, JSA, DWA or WFTC) where E = net income for PWC and C = exempt income for PWC; A = maintenance requirement; and $c = 0.15, 0.20$ and 0.25 for 1, 2 and 3 plus qualifying children respectively. Since net income is set to zero for the listed benefit recipients and also excludes several other types of benefits, it mainly captures net earnings and investment income.⁵ Exempt income includes an allowance for supporting qualifying and new children⁶ in the household, but this is reduced if a new partner has sufficient income to help support any new children. Exempt income also

⁴ The number of lone fathers in the data who have custody of children is too small to facilitate reliable statistical analysis.

⁵ It also includes the income of own children (qualifying or new).

⁶ Qualifying children are the natural children of the separated parents. New children are defined as children of one of the parent and a new partner. Stepchildren are defined as natural children only of the new partner of one of the parents.

includes housing costs and travel-to-work costs. The maintenance requirement depends on the number and ages of the qualifying children. Note that NRPs on IS or JSA have a zero proposed amount.

In addition, the final liability (L) is subject to three separate maximums, partly to ensure that non-resident parents are left with adequate resources to support themselves and their families:

$$L = \max (P , J , 0.3 * D , 0.85 * (R - V))$$

where: J = maximum dependent on modified values of A , F and G ; R = family income for the NRP; and V = protected income for the NRP family. The family income for the NRP includes all income except certain benefits for the NRP, any new partner and any dependent children. The protected income includes an allowance for family size and ages of children, housing costs, net council tax and travel-to-work costs that ensures that the NRP is at least £30 better off than he would otherwise receive on IS and HB. There is also a minimum liability of roughly 10% of the current Income Support rate for a single person, which currently stands at £5.20 a week. Those exempt from this minimum have a zero liability if L is below this minimum and exemptions include all those NRPs with any dependent children in their new household.⁷

To summarise the current system, liability depends primarily on the net income of both natural parents. Exemptions from this income include allowances for new children, which may be partially offset if the new partner has sufficiently high income. For the NRP, the presence of stepchildren and the income of a new partner also affect the maximum and minimum levels of liability.

The relationship between the liability and NRP income has three steps. At low levels of income, the liability is fixed at the minimum or at zero depending upon whether the NRP is exempt. Past the point where income is sufficiently high for L to exceed £5.20, the liability rises at a rate of 50% with any additional income. If income is higher than the point where the children's needs are deemed to have been met

⁷ Exemptions include those NRPs with any dependent children in their new family, those receiving certain disability benefits, those under the age of 16, those under the age of 19 and in full-time education and those with net income below the minimum.

$(F+G \geq 2A)$, the liability rises at a lower rate with income to allow the children to share in the good fortune of a high income non-resident parent. The income of the PWC affects the liability only in the third of these steps and in determining the point where the third step begins. The higher the income of the PWC, the lower the amount of NRP income where the third step begins and the slower the increase in the liability with NRP income in the step. Hence, increases in PWC income reduce the liability, but in a non-linear fashion.⁸ The number of qualifying children influence the liability both directly in the third step for NRP income and indirectly by increasing the exempt income for the PWC. Finally, a rise in the NRP's housing or travel-to-work costs reduces the liability through its impact on exempt income. Similarly, a rise in the PWC's housing to travel to-work costs increases the liability. Hence, there are incentives to increase spending on either of these items.

In contrast, the liability calculation proposed in the reform is simply a proportion of the non-resident parent's earnings:

$$L = d * N \quad \text{if } N \geq \text{£}200$$

$$L = e * N \quad \text{if } \text{£}100 < N < \text{£}200$$

$$L = \text{£}5 \quad \text{if } N < \text{£}100$$

where: N = net earnings of NRP if there are no new or stepchildren, $0.85 * (\text{net earnings of NRP})$ if there is 1 new or stepchild, $0.80 * (\text{net earnings of NRP})$ if there are 2 new or stepchildren, $0.75 * (\text{net earnings of NRP})$ if there are 3 or more new or stepchildren; and $d = 0.15, 0.20$ and 0.25 for 1, 2 and 3 plus qualifying children respectively. In the case where there are no children in the second family e is $0.25, 0.35$ or 0.45 of additional earnings if there are 1, 2 or 3 or more qualifying children⁹. There are no exemptions to the £5 minimum. The net earnings of the non-resident parent include WFTC payments

In summary: under the proposed reformed system the liability depends only on the NRP earnings, the number of qualifying children and the number of NRP's new and step children with a new partner. Any other information about the PWC is

⁸ In addition, the higher the PWC income, the lower the maximum liability level set in J .

⁹ When there are 1/2/3+ children in the second family then the e schedule is 0.205,0.29,0.375/0.19,0.27,0.35/0.175,0.25,0.325.

ignored, as is any information about any new partner of the NRP. As in the current system, the relationship between the liability and NRP income has three steps. At low levels of earnings, it is constant at the minimum £5 payment. In the second step, the liability increases at a rate of 25%, 35% or 45% with additional earnings if there are 1, 2 or 3 or more qualifying children respectively.¹⁰ Above £200 of net earnings, the liability rises at rates of 15%, 20% and 25% respectively. The reduction in the percentage for second families allows the NRP to give marginally more support to new and stepchildren. For example, with one qualifying child and one new child, 15% of the NRP earnings is allowed for the new child and 12.75% (0.15×0.85) for the qualifying child.¹¹ Note that the formula makes no distinction between natural new and stepchildren in the second family, whereas the current formula only allows for new children, presumably on the grounds that stepchildren should be receiving support from *their* non-resident parent.¹²

The way in which Child Support interacts with the tax and welfare system is also important. A second major part of the reform deals with the benefit disregards for receipt of Child Support. The White Paper proposes the introduction of a £10 disregard for Income Support and also proposes increasing the current Family Credit disregard of £15 such that WFTC will disregard all child support payments no matter how large. The White Paper indicates no change to the current £15 disregard in the assessment for Housing Benefit.

There is no change proposed to the current tax treatment of Child Support receipts and payments. Receipts are free from NI and tax liability. Child Support payments qualify for tax relief for the non-resident parent if the parents are/were married to each other. The tax relief is limited to the size of the married couple's allowance and currently operates at a rate of relief of 10%. The relief ceases if the parent with care remarries.

¹⁰ These are the marginal rates within the second step bounds, but the average liability rate gradually rises from 5% at £100 to the respective 15%, 20% or 25% at £200 of net earnings.

¹¹ This is not to say that the NRP may not contribute more or less than the designated percentage to the support of the new child.

¹² Thus there is a "double-dividend" for stepchildren in the proposed reforms. Not only do the reforms benefit second families with stepchildren by allowing this new reduction in liability but the increased compliance and the removal of the PWC income from the liability calculation should raise the Child Support received for them by the family.

3. The Objectives of Reform

One of the major objectives of the reform is to raise the degree of compliance of Child Support payments closer to the level of assessed liability. The White Paper suggests that “the new simpler rules, tougher sanctions and better enforcement of maintenance will mean that at least 80% of maintenance due will be paid under the new scheme”.¹³

The popular conception of the proposed reforms is that the present system deters compliance because liability is determined by a complicated function of both parents’ incomes and many other factors such as housing costs, the number of children of the partnership, and any income of the non-resident parent’s new partner. The reform is portrayed as replacing this complicated relationship by a simple linear function of the non-resident parent’s income and the number of children in both families. In fact, the reform also makes the relationship between liability and the non-resident parent’s income non-linear, but the new formula requires less information from both parents and involves only two mathematical operations¹⁴. Thus, it will be easier for the parties concerned to understand how the liability has been determined and easier for the CSA to determine the information required to make the computation. In addition, the relative stability of the factors entering the assessment reduces the opportunities for parents to request a reassessment of the liability due to changed circumstances.¹⁵

While the White Paper suggests that this simplified formula will promote compliance it is by no means clear why this should be so¹⁶. On the one hand, less information is required, but, on the other hand, the liabilities that are generated may be less closely related to the needs of the children and the resources available to them. For example, it seems likely that if the income of the parent with care is not sufficient

¹³ Chapter 2, paragraph 24.

¹⁴ The White Paper proposes that tables will be made widely available which show the liability for any given band of non-resident parent’s income, dependent upon the number of qualifying children and the number of children in the non-resident parent’s second family.

¹⁵ Indeed, the only apparent grounds for a reassessment are if either the number of children change or there is a variation in the non-resident parent’s earnings of more than 5 percent.

¹⁶ The Australian child support system is similar in structure to the existing UK system in that it of the income-shares type, and it achieves a compliance rate of more than 80%. See <http://www.csa.gov.au/scheme/FF4.DOC>.

to meet the needs of the children this would be a motivation for compliance, but this parent's income no longer enters the formula.

It has also been suggested that lower levels of liability will enhance compliance, possibly because lower liabilities will be perceived as fairer by non-resident parents.

The proposed introduction of a £10 disregard for Child Support into Income Support assessments and the raising of the WFTC disregard from £15 to a full disregard are also both intended to promote compliance. The enhanced disregards give parents with care receiving Income Support or WFTC a greater financial reward for co-operating with the CSA (those on Income Support without a Child Support agreement already face a £20 benefit penalty for failure to co-operate without good grounds). In addition, a NRP whose corresponding PWC is on either benefit may be encouraged to pay (or pay more) since it increases the income available to their children more than under the existing system.¹⁷

A second objective of the reform is to shift some of the burden of supporting the children of lone (and some remarried) mothers from benefit payments to the non-resident fathers, but the potential impact of the reforms on government spending on benefit payments is ambiguous. Although any new Child Support payment above the disregard level reduces government spending of welfare payments, the higher disregards themselves will increase benefit spending for any already existing payments below that level.

A third objective of the reforms is to reduce some of the work disincentives implicit in the current Child Support formula and the benefit disregards for Child Support. Work incentives are improved for non-resident parents through the lowering the Child Support taper on their earnings (although the "income effect" arising from their lower liabilities could lead to lower hours of work), while the return to working is also improved for the non-resident parent's new partner since the partner's earnings would no longer enter the formula. The incentives for the parent with care are also improved through the removal of their income from consideration by the formula.

¹⁷ However, the enhanced disregards may increase formal Child Support payments at the cost of reducing informal payments and payments-in-kind.

The rationale for the current Child Support disregards in the WFTC and Housing Benefit programmes, but not in Income Support, is a work incentive one: by making Child Support effectively an in-work transfer the current system aims to promote the incentive to work. It has been explicitly recognised that the introduction of a disregard for Income Support may be a considerable discouragement for working for PWCs and the raising of the WFTC disregard is specifically aimed to counterbalance this negative impact. However, the net impact can only be judged using empirical evidence.

Finally, and as a consequence of the first three goals, it is hoped that the reforms will ensure greater financial resources for those children most in need. Whether the proposed reforms will help to reduce the incidence of poverty among children depends upon a complicated interaction between changes in liabilities, compliance and working behaviour. Lower liabilities for non-resident parents with second families may benefit in protecting the children in these second families from poverty. On the other hand, children living with parents with care may suffer from the lower levels of liabilities, although the £10 Income Support disregard and improved work incentives may help, in particular, the poorest parents with care. The White Paper itself contains very few figures and rather crudely points out that the average amount actually paid under the existing system with its low compliance rate would be close to the average amount that would be expected to be paid under the new system if compliance increased to 80%. However, the effects of the proposed reforms on child support liabilities and their effects on the net incomes of the caring and non-resident parents have not been investigated at all.

There are no clear-cut, *a priori*, conclusions on the potential outcomes of the reforms as there are forces operating in opposing directions. Empirical evidence on the relative sizes of these counterbalancing pressures is required to assess the likely effects of the changes.

4. Existing Evidence

Since the 1996 welfare reforms in the US, some states have chosen systems similar to the current system while others have chosen schemes similar to those proposed in the reforms. These differences ought to be informative about the likely effects of the changes, but it is too early for any quantitative analyses of the effects of

the US changes. Some analysis of Child Support based on data that pre-dates the Clinton welfare reform can be found in US Census Bureau (1991), Bianchi *et al* (1997) and Bartfeld (1998) who all look at dissolved partnerships in US SIPP data.

Existing empirical research on the determinants of compliance provides only a vague indication of the likely impact of difference aspects of the reform. There is some evidence that greater enforcement resources do significantly improve compliance. For example, Freeman and Waldfogel (1998) estimate that for every additional \$100 per non-resident father that is spent per annum on enforcement activity, there is a 1% rise in the proportion of never-married families receiving Child Support. However, while statistically significant, this is not a very large effect and it is not clear that this is effective in a cost-benefit sense. In addition, the fairness of the system may also be important. Lin (1997) uses US data that records the non-resident fathers' perceptions of the fairness of the Child Support award and finds that perceived unfairness has a strong and statistically significant negative correlation with compliance¹⁸. The proposed Income Support disregard for the UK is very similar to the \$12.50 (approximately £8) weekly disregard that was a feature of the AFDC system (the US equivalent to Income Support for lone mothers) funded by the US federal government from 1984 to 1996. Since 1996, each state has had the freedom to continue to fund this exemption and many have not, despite the imposition of federal mandated targets to increase child support compliance. There have also been a number of US studies¹⁹ that have investigated the determinants of compliance but none have identified a statistically significant effect of the disregard on compliance.

Evidence on the effectiveness of the existing Child Support in the UK to promote work incentives for the UK can be found in Bingley *et al* (1995, 1997) and Preston and Walker (1999). In this paper, the existing estimates of the determinants of labour supply behaviour from that latter paper are used to simulate the impact of the proposed reforms for the employment choices of mothers with care.

¹⁸ Lin interprets his evidence as implying that fairness would promote compliance. However, perceptions of fairness are likely to be based on characteristics, such as altruistic attitudes, that themselves are correlated with compliance. Thus, it is unclear that a causal connection can be inferred from this paper.

¹⁹ Quantitative results are available in Robins (1995), Meyer (1993), Beron (1990, 1988a, 1988b), Garfinkel *et al* (1999a, 1999b), Garfinkel and Oellierich (1989), Lin (1997), and Freeman and Waldfogel (1998).

The evidence from the US on the potential for Child Support to reduce poverty amongst children is fairly unambiguous. Indeed, a particular emphasis in the US research has been the positive role for Child Support in lifting children in lone parent headed households out of poverty, while not being sufficiently onerous to drop children in second families into poverty. For example, US Census Bureau (1991) finds that the mean ratio of income to household “needs” fell from 2.43 before the father’s departure to 1.79 just 4 months after, while the share of children in poverty increases from 18.5% to 35.5%. Other US work by Meyer and Hu (1997) and Meyer (1995) finds that Child Support plays an important role in lifting children in lone parent headed households out of poverty (5% fewer when one allows for Child Support transfers) and had little effect on the poverty rates of children in second families headed by an non-resident father. Similar findings are given in Bartfield (1998), which looks at the ratio of income-to-poverty ratios and finds that this ratio rose from 3.04 to 3.31 for separating fathers and fell from 3.04 to 1.63 for separating mothers. Thus, separation resulted in a mean rise in living standards for fathers and a dramatic fall for mothers on average. However, it is not clear whether the underlying relationship between the economic resources available to the parent with care and those available to the non-resident parent driving these conclusions for the US can also be readily applied to the case of the UK. Moreover, this says nothing about whether a Child Support system of the type proposed in the reforms is better or worse in redistributing the resources than the current system.

5. Data

The type of data required for an analysis of the proposed Child Support reforms is not easily available. The existing Child Support liability formula requires extensive income information for the households of both parents, as well as information on family structures, housing costs and other factors. In addition, in order to compute the net incomes of both parents, information that is relevant to the assessment of welfare payments is required. This includes data on childcare costs (for Family Credit/WFTC and Housing Benefit) and hours of work (for Income Support and Family Credit/WFTC). Moreover, since many separated parents may apply to the CSA for a Child Support agreement, it is important to assess the effects of reform for the entire potential population rather than just those for whom use of the CSA is obligatory because of they are in receipt of welfare benefits.

It was necessary therefore to combine information from two surveys. The Family Resources Survey (FRS) is a continuous survey that has been in the field since October 1992. It has a large sample size of approximately 25,000 households each year and a response rate of approximately 70%. Since only the 1997 survey identifies stepchildren, data on 1904 mothers-with-care (including lone mothers and those who have repartnered) was available for this year. While all the appropriate data exists in this latest survey, it is not possible to identify non-resident parents in the data (except for those that are observed to pay Child Support, which provides only a censored view of non-resident parents).²⁰ Moreover, it is important that mothers-with-care (henceforth MWCs) are matched appropriately with different types of non-resident fathers (henceforth NRFs) for there are likely to be strong correlations in terms of such factors as their likelihood of repartnership, work behaviour, wage levels and housing costs.

In order to estimate the likely characteristics of the NRF corresponding to each of the observed MWCs in the FRS, a second survey, the British Household Panel Survey (BHPS) was exploited. The BHPS originally surveyed approximately five thousand households in 1991. Being a panel that follows all adults interviewed in this first wave, the BHPS implicitly provides continuing information on both parents who separate some time after the first wave. The drawback of this data is that it provides a very small sample size (only 300 observations) and it may not be typical of parents not living together in the sense that it only contains those who have recently been married or cohabited. It therefore excludes lone mothers who have never had a cohabiting relationship. One immediate consequence is that the proportion of NRFs estimated to have second families is much lower than estimates from other sources and NRFs with second families were analysed as a separate group for this reason.

However, there is little information from other sources to check the extent to which these deficiencies induce bias in the analysis. It seems likely that this data will give a reasonably accurate view of the correlations between the necessary information of the parents, especially when the relationships observed in the BHPS are used to estimate the likely characteristics of NRFs for the MWCs in the larger and more representative FRS sample.

²⁰ To the best of our knowledge, this is true of all of the major population surveys.

Thus, the BHPS data is exploited to identify the correlations between the characteristics of MWCs in the FRS and their corresponding NRFs. For example, the correlation between the incomes of MWCs and other characteristics such as age and

Table 1: BHPS and FRS Sample Characteristics

	Mothers With Care		Non-Resident Fathers	
	BHPS	FRS	BHPS	FRS
% with:				
- 1 qualifying child	39.7	49.1		
- 2 qualifying children	43.0	35.0		
- 3+ qualifying children	17.3	15.9		
% with youngest qualifying child:				
- aged less than 5	25.3	34.7		
- aged 5 to 10	47.7	37.0		
- aged over 10	27.0	28.3		
Average age	31.9	33.9	34.9	36.3
% left education:				
- aged 16 or less	50.9	71.0		
- aged 17 to 18	30.3	19.7		
- aged over 18	18.8	9.4		
% in London & south-east	31.1	31.7		
% in housing type:				
- owned/mortgage	47.6	32.0	54.6	50.3
- rented from LA/HA	38.6	54.4	18.2	22.4
- private rented	13.8	13.6	27.3	27.3
% with partner	19.3	14.0	31.0	31.8
% with step or “new” children			18.3	20.8
% with step children			14.7	16.5
% with “new” children			4.7	5.4
% working	48.5	45.2	82.0	79.3
% of partners working	71.1	81.6	52.7	51.1
Average hours:				
- if working	25.8	27.8	47.7	46.9
- for working partner	46.2	47.3	35.1	35.1
If working:				
- average wage	6.71	6.06	9.03	9.02
- average wage with minimum	6.86	6.22	9.13	9.20
- average estimated wage		6.46		
- average estimated with minimum		6.46		
If partner working:				
- average wage	7.34	8.76	6.71	5.65
- average wage with minimum	7.34	8.79	6.83	6.04
Sample size	300	1904	300	1904

Notes: Step children are children of the non-resident father’s new partner but not the non-resident father, while “new” children are children of the non-resident father and his new partner.

education, working behaviour, and the incomes of the ex-partners can be estimated. Similarly the relationship between the NRF's housing costs and the extent to which they have repartnered or have new or step children are estimated. These estimated characteristics also allow for the observed random variation in the NRF variables. Such simulation of the characteristics of non-resident fathers to match the lone mothers is common practice in the US analyses with the exception of Bartfield (1998) – a paper that uses the SIPP panel which, like BHPS, allows the partners to be followed after partnership dissolution.

Some summary statistics for both the FRS and BHPS data are presented in Table 1. The first three columns of figures show the observed data, while the final column presents the results of the simulated characteristics of NRFs in the FRS data. There are differences in the characteristics of the MWCs between the two samples, although the basic employment and wage statistics are very similar. For example, there are more and older qualifying children in the BHPS than the FRS while the mothers are slightly younger and more highly educated. These differences result in different mean characteristics for the NRFs across the two surveys: for example BHPS mothers are: younger, more educated, and more likely to be owner occupiers.

6. Compliance

The BHPS data is also used to model compliance by estimating the relationship between individual compliance (defined as the ratio of Child Support paid to the Child Support liability), the level of liability, and the characteristics of the MWC (and the estimated characteristics of the NRF). The definition of compliance is somewhat wider than that used in the White Paper as it reflects the difference between the sum of both formal and informal financial transfers made from the NRF to the children relative to the amount that they would be liable for under the CSA formula. The sample size is 199 and consists of all the observations on separated couples who had positive Child Support liabilities in the BHPS pooled over all available years since 1992.²¹ The compliance estimation contained two stages. First, the probability of paying any Child Support at all was modelled using a Logit framework. Second, an

²¹ Similar estimation has been done by Beron (1990) in the US using similar methods.

OLS regression was used to estimate the rate of compliance, conditional on paying something.

The results are presented in Table 2. The Logit results that determine the probability of paying anything are rather imprecise with the exception that the Child Support liability is positively correlated with compliance. Note that this is at odds

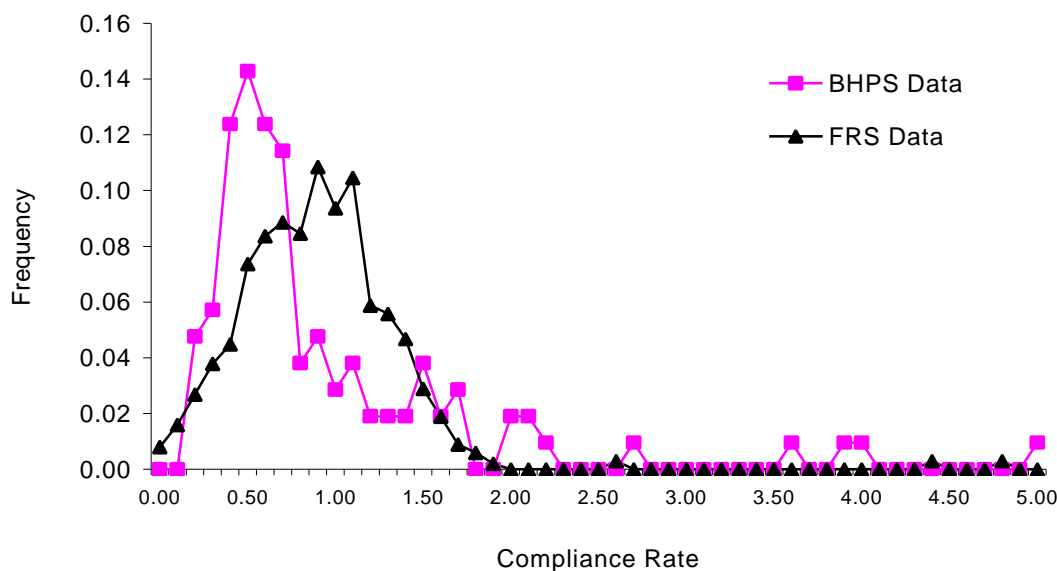
Table 2: Compliance Estimation Using BHPS Sample

	Logit Probability Model		OLS for Proportion Paid	
	Coefficient	Std Error	Coefficient	Std Error
CS Liability (£ per week)	0.027	0.007	- 0.004	0.003
# of qualifying children:				
- one child	0.657	0.612	- 0.071	0.253
- two children	- 0.623	0.552	0.042	0.247
- three or more children	-	-	-	-
Age of youngest child:				
- less than 5	- 0.053	0.733	0.155	0.341
- 5 to 10	0.291	0.518	0.041	0.238
- over 10	-	-	-	-
MWC age:				
- under 30	0.133	0.659	- 0.670	0.306
- 30 to 34	0.103	0.491	- 0.340	0.234
- over 34	-	-	-	-
MWC age left education:				
- under 17	0.277	0.570	- 0.018	0.267
- 17 to 18	0.384	0.602	0.216	0.260
- over 18	-	-	-	-
MWC partner dummy	0.472	0.487	- 0.442	0.185
MWC work dummy	0.431	0.395	0.327	0.173
MWC housing type:				
- owned / mortgage	0.155	0.661	- 0.414	0.354
- LA / HA rent	0.191	0.689	- 0.545	0.375
- private rent	-	-	-	-
MWC in southeast/London	- 0.499	0.420	0.353	0.193
NRF age:				
- under 30	- 1.334	0.738	0.362	0.364
- 30 to 34	- 0.119	0.544	0.500	0.252
- over 34	-	-	-	-
NRF work dummy	1.933	0.916	- 0.502	0.619
NRF self-employed	- 1.351	0.735	- 0.072	0.326
NRF partner dummy	0.631	0.721	0.344	0.347
NRF partner work	- 0.348	0.669	- 0.348	0.339
NRF second family	- 0.952	0.667	- 0.165	0.298
Constant	- 3.545	1.283	1.952	0.788
Pseudo R ² / R ²	0.213		0.199	
Number of observations	199		105	

Notes: Second family refers to the presence of children (new or step) in the non-resident father's family. MWC refers to the mother with care and NRF to the non-resident father.

with the hopes expressed in the White Paper that lower liabilities encourage compliance. In addition, younger NRFs, and those not in work, are less likely to pay any Child Support than older and working NRFs. The effect of the liability on the level of compliance conditional on paying something, however, is not statistically significant and is small. For the level of compliance, the ages of both the MWC and NRF are important, as is whether the MWC is working or whether any new partner of the MWC is working. It is noticeable that none of the variables for the NRF's second family are significant in the compliance estimation, although this may be due to the small number of such second families in the sample.

Figure 1: Compliance Rates



These results were used to estimate the likely “current” compliance rates facing the PWCs in FRS data.²² A comparison of these current compliance rates (conditional on those paying anything) for the BHPS and FRS data are shown in Figure 1. In the BHPS sample, 49.6% of those with a positive liability were found to pay something, and those who paid anything paid an average 94% of the liability. The estimated corresponding figures for the FRS sample were 41.9% and 87.3%. However, the graph suggests that compliance is not a simple all-or-nothing relationship, with a wide distribution of compliance rates, distinctly skewed to the left.

²² The compliance estimation requires a liability level to be calculated for the FRS data. The liability level used is that calculated for the baseline scenario for the current Child Support system described in section 7 below.

To conduct the simulation work at different levels of compliance, the estimated compliance equation was used to compute a compliance index that indicates the propensity to comply. Parents in the FRS were then ranked from those with the highest score to the lowest. For a compliance rate of say x%, the top x% with the highest compliance index were then assigned to pay their full liability while the remainder were assigned to pay nothing²³. Hence, the White Paper's 80% target is modelled as 80% paying the full liability and 20% paying nothing.²⁴

7. Simulation

As a baseline to judge the impact of the reforms, the level of Child Support payments and net incomes were calculated under the current Child Support system at current compliance levels with wages and prices indexed to 1999 levels. In addition, it was assumed that the minimum wage legislation increases wages below the minimum to the minimum level. Net income consists of net earnings plus calculated benefit payments (covering Income Support, WFTC and Housing Benefit²⁵) plus Child Support payments for MWCs and minus the payment for NRFs. The net income figures reported in the tables are equivalised to a single adult person so that they roughly measure the income per person in the family. A family is deemed to be in poverty if income is below the HBAI poverty line, indexed to the 1999 level for a single person at £94. An approximate measure for government net revenues was calculated as the total income tax and National Insurance receipts minus benefit payments, grossed up by 52 to obtain an annual figure and by 1000 as the FRS is a 1 in 1000 survey.

7.1 The Potential for Poverty Reduction

One initial question which has been raised is to what extent do NRFs have the resources to provide reasonable levels of financial support for all of their children. Table 3 presents the employment and benefit receipt for the FRS sample under the

²³ Alternative ways of defining compliance will be pursued in future work.

²⁴ It is not clear what the 80% target precisely means. It could mean the "binary" type compliance used here, or it could mean that everyone pays a straight 80% of their liability. This second, "proportional", interpretation was also analysed and the outcomes found to lie somewhere between the effects at current compliance and the effects from the 80% binary compliance.

²⁵ As a reasonable approximation to the observed take-up rates, we assumed full take-up for Income Support and Housing Benefit and 65% take-up (from the FRS Family Credit information) for WFTC.

baseline scenario. It shows that some 73.8% of MWCs are eligible for benefits, compared to 26.4% of NRFs. In addition, only 47.3% of MWCs are in a household where anyone works, compared to 79.5% of NRFs. Hence, it appears that NRFs may be in a better position than the MWC to provide support.

Table 3 Current Benefit Receipt and Employment in the FRS Sample

	Percentage of Mothers with Care	Percentage of Non-Resident Fathers
Single		
- Income Support, no work	45.3	15.2
- Income Support, work	3.7	0.4
- WFTC	19.7	-
- not eligible for benefits, no work	5.4	-
- not eligible for benefits, work	13.4	52.8
Repartnered, without children		
- Income Support, no work	-	1.8
- Income Support, 1 worker	-	0.1
- WFTC, 1 worker	-	-
- WFTC, 2 workers	-	-
- not eligible for benefits, 1 worker	-	2.7
- not eligible for benefits, 2 workers	-	6.4
Repartnered, with children		
- Income Support, no work	2.0	3.5
- Income Support, 1 worker	0.2	0.1
- WFTC, 1 worker	2.2	4.8
- WFTC, 2 workers	0.7	0.5
- not eligible for benefits, 1 worker	1.0	5.0
- not eligible for benefits, 2 workers	6.4	6.8

Notes: The figures are estimated using the current baseline assumptions, that is, the current CS system, WFTC with 65% take-up, a minimum wage, CS payments under current compliance, and all prices wages and benefit levels indexed to 1999 levels. Children refers to dependent children living in the household of the mother with care or non-resident father. By definition, there are no mothers with care without children. Single non-resident fathers have no children in the same household. Those families defined as income support do not contain any person working 16 or more hours and have net income below the IS cut-off. Those families defined as WFTC contain at least one person working 16 or more hours and have net income below the WFTC cut-off. Those families defined as not eligible for benefits have net income in excess of the WFTC threshold if they contain one person working at least 16 hours or have net income in excess of the IS threshold if there is no-one working at least 16 hours. For the families of mothers with care with no-one working, the latter implies CS payments in excess of the IS threshold.

One way of addressing this question is to ask whether the combined income of both families can be redistributed between them to reduce the incidence of poverty - assuming that such redistribution does not affect the total amount available. The results of two such hypothetical redistributions are presented in Table 4, where income is simulated under the baseline scenario. In this sample, some 29.6% of all MWC and NRF families are in poverty if there are no Child Support payments. But

Child Support payments under the current system with current compliance rates serve to reduce this to 21.3%. If the income were distributed equally between the two households in proportion to family size, the fraction in poverty would fall to 12.3%. If, instead of distributing the joint net incomes across the two households equally, we ensured that just sufficient income were allocated to the smaller of the two families to move it out of poverty and the remaining resources allocated to the larger family, this would generate the lowest possible poverty rate of 6.2%.

Table 4: Scope for Poverty Reduction

Mothers with Care	Non-Resident Fathers			
	Single	Repartnered, without children	Repartnered, with children	All
Single	◆ 30.1	◆ 35.3	◆ 32.4	◆ 31.1
	● 19.4	● 27.8	● 28.1	● 22.0
	❖ 10.7	❖ 17.8	❖ 18.5	❖ 13.0
	□ 5.3	□ 8.9	□ 9.3	□ 6.5
	(60.6)	(9.6)	(17.3)	(87.5)
Repartnered	◆ 17.9	◆ 14.0	◆ 23.4	◆ 19.0
	● 15.2	● 8.0	● 21.9	● 16.2
	❖ 5.5	❖ 0	❖ 15.6	❖ 7.7
	□ 2.8	□ 0	□ 7.8	□ 3.8
	(7.8)	(1.3)	(3.4)	(12.5)
All	◆ 28.7	◆ 32.3	◆ 30.9	◆ 29.6
	● 18.9	● 25.4	● 27.1	● 21.3
	❖ 10.1	❖ 15.6	❖ 18.0	❖ 12.3
	□ 5.0	□ 18.2	□ 9.0	□ 6.2
	(68.3)	(11.0)	(20.7)	(100.0)

Notes:

- ◆ percentage of families currently in poverty with no Child Support payment
 - percentage of families currently in poverty with current Child Support payment
 - ❖ percentage of families in poverty if income redistributed equally
 - percentage of families in poverty if income redistributed to minimize poverty
- (% of mothers-with-care and non-resident fathers in each cell)

Hence, the current Child Support system makes a significant contribution to reducing the incidence of poverty and it appears that there might be considerable scope for further reductions. However, the second method of redistribution is unrealistic in that it might leave the larger family with no income. Moreover, large-scale redistribution would have an impact on the total amount of income available, both through the adverse work incentives and the fact that benefit payments are

means-tested on the family basis.²⁶ Thus, the possibilities may be severely limited by behavioural responses. Moreover, the hypothetical redistributions suggested in these scenarios do not use a specific formula that could be applied equally to all separated parents. In the real world, redistribution between parents has to use a specific formula and this limits the extent of redistribution that can take place. In particular, such a formula needs to be based on observable characteristics. Thus, having established that there are, in principle, sufficient resources for redistribution to make a large impact on child poverty, below we return to the practical case on the White Paper proposals to see their effect in practice.

7.2 Simulated effects (with labour supply fixed)

The impact of the Child Support reform is summarised in Table 5. For now, it is assumed that work decisions are unaffected by the reforms. The table shows four cases: the current system prior to the introduction of the minimum wage and WFTC, the baseline scenario, the reformed system with current levels of compliance and the reformed system with 80% compliance. The first two columns of figures in Table 5 show that the introduction of WFTC and the minimum wage have the greatest impact for this sample in reducing the incidence of poverty among NRFs and their second families. Indeed, the poverty rate falls from 26.4% for children living with NRFs to 21.4%. Otherwise, the effect of WFTC and the minimum wage has been limited, with very few winners and losers.

Without any change in compliance, the Child Support reforms substantially reduce the average payment from £35.92 to £26.27. However, the welfare system “cushion” ensures that the average income for MWCs is barely affected, while NRFs see a considerable rise in their net income. The difference is made up by the taxpayer, as annual net government revenue falls by over £800 million. But if compliance improves to 80%, the outcome is quite different. The average Child Support payment now *rises* to £40.71 and MWCs experience an average rise in net income from £133.54 to £136.18. The child poverty rate for MWCs falls by almost 4 percentage points. On the other hand, NRFs witness a fall in their income, with the child poverty rate rising from 21.4% to 25.6%. Since there are 4.7 times as many children living

²⁶ It is also true that changes in the total amount available might affect the incidence of poverty for the “no child support” starting point.

Table 5: Summary of the Effects of the Reforms (No Change in Behaviour)

	Current CS System		Reformed CS System	
	FC and no Min Wage	WFTC and Min Wage	with WFTC and Minimum Wage	
	Current compliance		Current compliance	80% compliance
Average weekly CS paid	35.49	35.92	26.27	40.71
Average weekly income:				
- mothers with care	131.74	133.54	132.89	136.18
- non-resident fathers	209.28	213.49	221.97	210.50
% families in poverty:				
- mothers with care	28.1	27.2	26.8	23.3
- non-resident fathers	18.3	15.4	15.3	16.4
% children in poverty:				
- mothers with care	34.5	33.4	33.8	30.1
- non-resident fathers	26.4	21.4	20.6	25.6
% winners/losers:				
- mothers with care	4.1 / 19.1	base	27.2 / 26.7	59.9 / 22.4
- non-resident fathers	1.5 / 14.6	base	45.2 / 2.8	32.1 / 47.9
Change in annual net govt. revenue (£ billion)		base	- 0.83	- 0.00

Notes: Average weekly income is net income plus CS payments for mothers with care and minus CS payments for non-resident fathers, equivalised to the equivalent level for a single person household. The effects of the reformed CS system always assume WFTC and a minimum wage. 80% compliance assumes that 80% of non-resident fathers pay the full liability while 20% pay nothing. The change in annual net government revenue is total tax and NI revenues minus benefit payments for both the mothers with care and the non-resident fathers, multiplied by 52, by the sample size, and by 1000 as the FRS is a 1 in 1000 survey. Since there are 4.7 times more children living in MWCs families than in NRFs, the overall average poverty rate among children should allow the MWC rate a 4.7 weight

MWCs as with NRFs, the **overall** child poverty rate falls slightly from 31.3% prior to reform to 29.3% post-reform. The cost to the government of reform is basically neutral if compliance improves to 80%. Clearly, any change in compliance will be extremely important. In Figures 2 to 4, the effect of the reform on the average Child Support payment, net incomes and child poverty rates are graphed for a range of compliance rates. The 100% compliance points in graph 2 reflect the fall in average liability from £57.55 under the current system to £42.47 under the reformed system. Current compliance rates roughly correspond to the 40% compliance points and the graph shows that compliance would need to rise to around 65% for the average payment not to fall under reform. It also shows how increasing compliance generates diminishing returns in increases in the average payment, due to the fact that those with lower liabilities are less likely to comply. If increasing compliance becomes more difficult and more costly at higher levels of compliance, there may be a clear crossing point above which the cost outweighs the gain in payment increase.

Figure 2 Average CS Payment

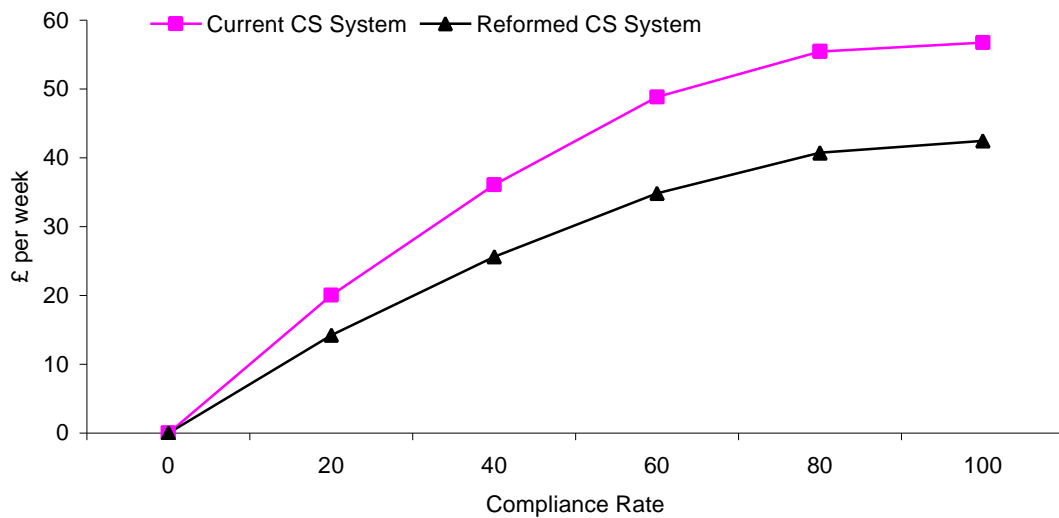


Figure 3 shows how little the Child Support reform or changes in compliance will affect the average net income for MWCs. Most of the gain of rising compliance is felt at very low levels: the first 40% of compliance increases the average income from £122 to £132, but it only rises to £137 with complete compliance. Increasing compliance at higher levels draws in those who, on average, have the characteristics associated with having lower liabilities. These tend to be NRFs matched with MWCs who are receiving benefits and derive little gain in net income from increased Child Support payments. Moreover, at all levels of compliance, the reform generates a change in the average income of less than £2 per week. This reflects the balancing of two contrary forces: the fall in Child Support payments (and thereby net incomes) for those who are not on benefits versus the increase in net income from the reformed benefit disregards for those who are on benefits. For NRFs, net income falls steadily as compliance increases, although at a decreasing rate, and the reforms unambiguously increase average net income at each compliance level. The “breakeven” level of compliance for both MWCs and NRFs is just under 60%. Below this compliance point, MWCs experience a fall in average income relative to the current system, while NRFs experience a gain. Above it, MWCs enjoy an average gain while NRFs an average loss.

Figure 3: Average Income

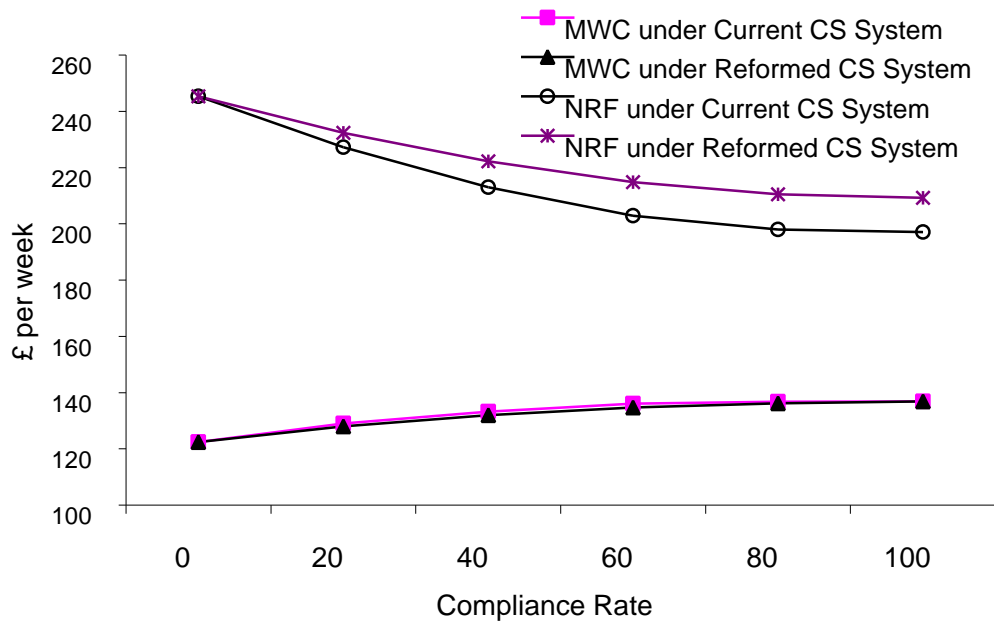


Figure 4 shows the impact of compliance and reform on child poverty rates and captures the impact on the lower end of the income distribution. For MWCs, increasing compliance steadily reduces poverty under either Child Support system until compliance reaches 60%. Thereafter, increasing compliance tends to benefit MWCs on Income Support, who gain little under the current Child Support system but do benefit from the disregards under the reformed system allowing increasing compliance to reduce poverty. For NRFs, the poverty rate increases steadily with compliance under the current Child Support scheme, but jumps sharply between 60% and 80% compliance under the reformed scheme. Only when the most reluctant NRFs, who are the poorest ones, are brought to comply does compliance begin to bite on poverty. The impact of reform on non-resident fathers with second families is discussed in more detail below.

The importance of Child Support in reducing child poverty requires a balancing of the reduction in poverty for MWCs against the increase for NRFs. Using the suitably weighted average, the proportion of children in poverty is 33% at zero compliance or no Child Support payments. At current levels of compliance, the combined poverty rate under reform is 31%, falling to 29% at 80% compliance and to 28% if all liabilities are paid. Hence, Child Support payments clearly play an important role in lifting children out of poverty.

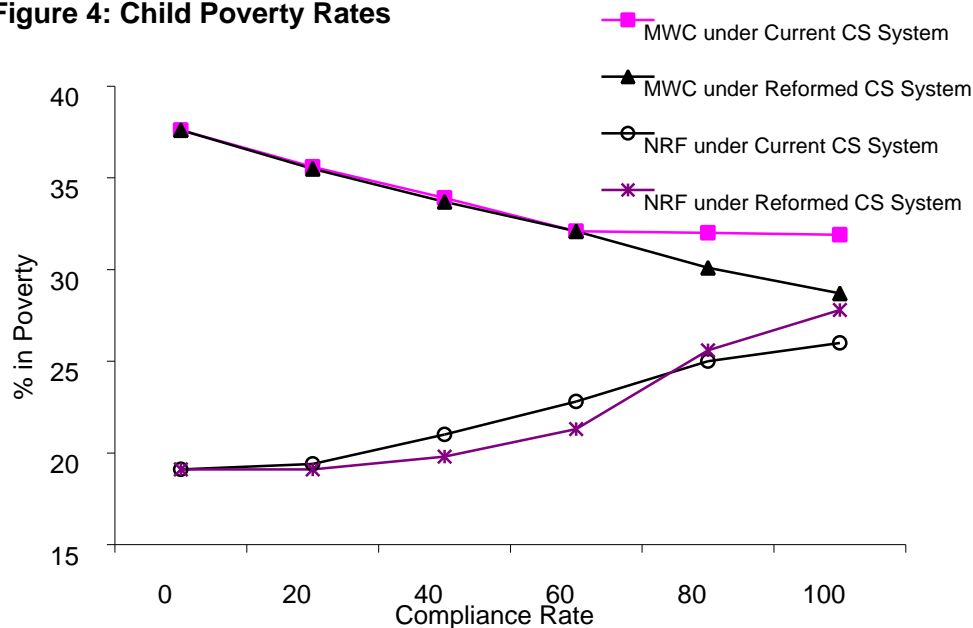
Figure 4: Child Poverty Rates

Table 6 considers the impact of different Income Support disregards for the sample of MWCs potentially eligible for Income Support. It also highlights the effect of the reforms on the main component of the CSA client group. For this group, the effect of the reform is to reduce the average Child Support payment £22.53 to £15.76 if there is no change in compliance and to raise it to £33.87 if compliance rises to 80%. However, even in the absence of a compliance change, net income rises slightly due to the new £10 disregard and poverty declines slightly. If compliance rises to 80%, the size of the disregard becomes very important. A £10 disregard reduces child poverty from 49.7% to 44.3%, while the £15 disregard reduces it further to 41.9%. In terms of net government revenue, there is a broad relationship that each 1 percentage point reduction in child poverty achieved through the disregard costs approximately 100 million pounds a year.

The effects of the WFTC disregard on MWCs who are potentially eligible for WFTC are presented in Table 7. The increase in the disregard from £15 to the full Child Support payment under the proposed reforms raises average income for this group from £130 to £133 under current compliance and from £134 to £140 under 80% compliance, but has little impact on poverty. However, increasing WFTC take-up from 65% to 95% (under the reform with 80% compliance) reduces the rate of child poverty for this group from 11.3% to 4.4%.

Table 6 Mothers With Care Potentially Eligible for IS (CSA Client Group)

	Current System	Reformed CS System	
	Current Compliance	Current Compliance	80% Compliance
Average weekly CS paid	22.53	15.76	33.87
Average weekly income:			
- without IS disregard	100.82	99.83	99.85
- with £10 IS disregard	-	101.75	103.98
- with £15 IS disregard	-	102.68	105.94
% families in poverty			
- without IS disregard	42.7	43.9	43.4
- with £10 IS disregard	-	40.9	36.0
- with £15 IS disregard	-	40.0	33.7
% children in poverty			
- without IS disregard	49.7	51.5	50.8
- with £10 IS disregard	-	49.1	44.3
- with £15 IS disregard	-	48.3	41.9
% winners / losers:			
- without IS disregard	base	3.0 / 12.6	7.9 / 12.0
- with £10 IS disregard	-	26.9 / 6.8	65.8 / 6.7
- with £15 IS disregard	-	27.6 / 6.1	66.5 / 6.1
Change in net govt. revenue (£b):			
- from adding £10 disregard	-	- 0.28	- 0.64
- from adding £15 disregard	-	- 0.42	- 0.94

Notes: Potentially eligible includes families eligible for Income Support and the 5% of families with no-one working but not eligible for IS due to CS received under the baseline scenario with the current CS system.

Table 7: Mothers with Care Eligible for WFTC

	Current System	Reformed CS System		
	Current Compliance	Current Compliance	80% Compliance	80% Compliance 95% WFTC Takeup
Average weekly CS paid	38.48	26.57	40.21	40.32
Average weekly income:				
- with £15 disregard	133.44	129.70	134.40	143.78
- with full disregard	-	132.99	140.13	149.80
% families in poverty:				
- with £15 disregard	11.6	12.0	10.6	4.0
- with full disregard	-	12.0	9.2	4.0
% children in poverty:				
- with £15 disregard	13.3	14.5	13.0	4.2
- with full disregard	-	14.1	11.3	4.4
% winners / losers				
- with £15 disregard	base	22.9 / 48.8	47.9 / 42.7	62.7 / 27.1
- with full disregard	-	37.3 / 40.3	60.0 / 35.4	78.3 / 11.8
Change in annual net govt. revenue due to the full disregard (£ billion)	-	- 0.53	- 0.95	- 1.01

Notes: Mothers with care eligible for WFTC are those eligible under the baseline scenario with the current CS system. WFTC take-up is currently estimated as 65% of those eligible.

One final area of special interest is the impact of the reform on NRFs with second families. A separate analysis for this group is presented in Table 8. Average Child Support payments fall from £20.58 to £13.31 with reform if compliance is unchanged, but rise to £32.72 if compliance rises to 80%. Correspondingly, average income rises from £150 to £153 with no change in compliance and falls to £145 with improved compliance. Child poverty declines only slightly if compliance is unchanged, but rises from 21.4% to 25.6% (as shown in Table 1) if compliance rises. Because low income NRFs with second families are currently exempt from any minimum payment, concern has been expressed that they might be particularly adversely affected by the new £5 minimum proposed in the reforms. However, this

Table 8 Impact of Reform on Non-Resident Fathers with Second Families

	Current CS System	Reformed CS System	
	Current Compliance	Current Compliance	80% Compliance
Average weekly CS paid:			
- current or full reforms	20.58	13.31	32.72
- reform without £5 minimum	-	13.31	32.60
- reform excluding step children	-	15.75	39.71
Average weekly income:			
- current or full reforms	149.75	153.00	144.90
- reform without £5 minimum	-	153.00	144.96
- reform excluding step children	-	151.96	142.00
% families in poverty:			
- current or full reforms	19.1	18.6	23.2
- reform without £5 minimum	-	18.6	23.2
- reform excluding step children	-	18.8	24.7
% children in poverty:			
- current or full reforms	21.4	20.6	25.6
- reform without £5 minimum	-	20.6	25.6
- reform excluding step children	-	21.0	27.4
% winners / losers			
- current or full reforms	base	25.3 / 1.5	17.0 / 55.7
- reform without £5 minimum	-	25.3 / 1.5	17.0 / 53.1
- reform excluding step children	-	24.2 / 2.6	14.2 / 58.5
Change in annual net govt. revenue (£ b) due to:			
- £5 minimum	-	0	0
- including step children	-	- 0.08	- 0.40

Notes: Second family refers to the presence of children (new or step) in the non-resident father's family. The reform without a £5 minimum payment assumes that non-resident fathers with net income below £100 a week pay no CS. The reform excluding step children assumes that non-resident fathers can only deduct an initial proportion of their net income for new children and not for step children

minimum payment has virtually no effect on the second families in this sample studied here. The analysis also considered the effect of the inclusion of stepchildren in the NRFs allowance for children in a second family. The inclusion of stepchildren reduces the average Child Support payment by around £2 under current compliance and £7 under 80% compliance, but has a relatively small impact on net incomes and poverty rates. The inclusion costs the government around 80 million pounds a year under current compliance and 400 million pounds under 80% compliance.

7.3 Simulated effects with labour supply variable

The effect of the reform on employment choices is also analysed. The simulated labour supply effects are based on estimates of a discrete choice model of labour market status that models the probabilities of each individual being a full-time worker, part-time worker, and a non-participant as a function of observed characteristics (whether the youngest child is in one of three age ranges) and the net incomes that individuals would expect to command in each status. The modelling assumes a specific form for preferences that correspond to a labour supply function that would be linear in the net wage rate and the level of unearned income. The methodology is outlined in Moffitt (1984) and allows the recovery of estimates of the parameters of individual preferences over hours of work and net income. These parameters permit the probabilities of choosing each labour market state to be simulated using the calculated net incomes in each state and the number of children in each age range. Using estimates from Preston and Walker (1999), based on the 1994 Family Expenditure Survey, the employment outcomes for MWCs²⁷ can be simulated for the 1997 FRS data, both for the existing system and for any alternative welfare and Child Support systems chosen.

Apart from being based on an earlier and smaller dataset the estimates suffer from three important deficiencies. First, they assume that unobservable characteristics associated with participating in welfare programmes, for example self-confidence, are uncorrelated with labour market status. That is, Family Credit participation is assumed to be statistically exogenous. This is potentially important in the context of participation in Family Credit where the programme participation rate is significantly

²⁷ Since male labour supply is generally held to be inelastically supplied (see Blundell and MaCurdy (1999)), ignoring the effect of Child Support on the NRFs' labour supplies seems reasonable.

less than 100% and the estimates reported in Bingley and Walker (1997) suggest that this correlation is statistically significant²⁸. Secondly, the unobservable characteristics associated with being in receipt of child support, for example assertiveness, are also assumed to be uncorrelated with labour market status. There is no UK evidence on this issue but Hu (1999), using US data, suggests that there may be such a correlation.

Finally, the estimates assume that all that matters for determining labour market status choices is the levels of net income corresponding to each choice and not the composition of that net income. Thus, welfare payments may well be a more *reliable* source of income than earnings and, in particular, more reliable than Child Support payments from the ex-partner²⁹. In which case behaviour may be expected to be more sensitive to a given variation in welfare entitlements than to the same variation in net income resulting from Child Support changes. Similarly welfare payments may be stigmatised so that £1 of welfare is not worth the same, to the household, as a £1 of earned income or child support and hence would have a smaller effect on behaviour. The UK evidence on this in Bingley and Walker (1999) also suggests that the simple assumptions embodied in the Preston and Walker estimates are unlikely to be true: behaviour does appear to be significantly affected by the source of income as well as its level.

Thus, the estimates used here are unlikely to be unbiased and therefore the resulting simulations should be regarded as indicative rather than definitive. However, while these estimates are suspect, theoretical considerations give no clues as to either the direction or magnitude of the bias. Moreover, the technical difficulties associated with dealing with these sources of bias are considerable and this is likely to require more detailed data than is currently available. Thus, until such data is available, these estimates are the only ones available in the UK literature that allow us to simulate behaviour by making explicit comparisons of household welfare in different labour market states.

One important point to note in this analysis is that the modelling that allows for behavioural change is based on predicted wages, that is wages that we expect individuals to be able to command in the labour market as predicted by an estimated

²⁸ See also work by Keane and Moffitt (1998) for US data.

²⁹ See Jenkins and Millar (1984).

equation that relates the wages of workers with their observed characteristics³⁰. Thus, the levels in the tables below are not strictly comparable with the earlier ones. However, the changes across rows are broadly comparable across the two sections.

A summary of the impact of Child Support reform allowing for a work response by MWCs, is presented in Table 9. Note that the inclusion of labour supply effects does not alter the Child Support payment under the reformed system so that the income outcomes for the NRPs are unaltered from the analysis with fixed labour supply and need not be repeated in this section.

Table 9 Summary of the Effects of the Reforms on Employment Responses

	Current CS System		Reformed CS System	
	FC and no Min Wage	WFTC and Min Wage	(WFTC and Min Wage)	
	Current compliance		Current compliance	80% compliance
Average weekly CS paid	36.44	36.59	26.27	40.71
% of mothers with care:				
- not working	57.5	56.2	55.1	53.3
- working part-time	22.0	22.7	23.3	25.3
- working full-time	20.5	21.2	21.6	21.4
Average weekly income:				
- mothers with care	130.48	132.93	133.48	138.55
- non-resident fathers	212.81	212.88	221.97	210.50
% families in poverty:				
- mothers with care	20.5	19.0	18.6	15.8
- non-resident fathers	15.7	15.3	15.3	16.4
% children in poverty:				
- mothers with care	26.7	25.0	24.2	21.3
- non-resident fathers	23.7	21.0	20.6	25.6
% winners / losers:				
- mothers with care	8.0 / 26.0	base	30.2 / 27.6	60.1 / 22.5
- non-resident fathers	3.3 / 3.8	base	45.7 / 2.4	32.3 / 47.7
Change in annual net govt. revenue (£ billion)		base	- 0.99	- 0.30

Notes: The estimated employment choice for the mother with care is modelled as a discrete choice between not working (0 hour), part-time work (16 hours) and full-time work (37 hours). The employment choice for the non-resident father is assumed unchanged.

³⁰ It turns out that there is some “negative selectivity” in our results, that is, the predicted wages of non-workers are higher than for those observed to work. This finding is not uncommon in the UK literature, but it is something deserving of further research.

Using the estimated labour supply behaviour, 56.2% of MWCs are predicted not to be working under the baseline scenario of the current Child Support system, while 22.7% work part-time and 21.2% work full-time. Prior to reform, the child poverty rate is estimated to be 25.0%. Table 10 shows the impact of the Child Support reforms on these work choices at current compliance levels and at 80% compliance. It also shows the effects of variations in the Child Support disregards for Income Support, WFTC and Housing Benefit, as well as the consequence of an increase in WFTC take-up from 65% to 95%. Table 11 presents the corresponding figures for MWC child poverty rates and government revenues. The top three rows in each table show the impact of reform variations which may reduce the propensity to work for MWCs, while the bottom four rows show variations which enhance working.

If compliance is unchanged, the proposed package of reforms would slightly increase the proportions of MWCs working both part-time and full-time, reducing the fraction not working from 56.2% to 55.1%. If compliance rises to 80%, the proportion not working declines to 53.3% and over a quarter of MWCs now work part-time. In contrast to the case where employment is unchanged (see Table 5), child poverty for MWCs is estimated to fall even if compliance does not improve, showing how MWCs at the lower end of the income distribution may adjust their working behaviour to offset adverse income effects. The employment response also raises the net cost of the reform for government revenues: from £830 to £990 million pounds a year if compliance is unchanged, or from zero to £30 million if compliance improves to 80%.

Holding the WFTC disregard at the current level of £15 would result in a negative impact on employment choices from the reform, while the full disregard also serves to slightly reduce poverty among MWC children. On the other hand, the introduction of the £10 Income Support disregard reduces the proportion of working MWCs by 2-3 percentage points, mostly to the detriment of part-time work. This adverse employment response is partly responsible for the relatively small impact that the disregard now has on poverty. The introduction of a full disregard for Housing Benefit has a theoretically ambiguous impact on work incentives, but is found to increase part-time work at the expense of both not working and working full-time. It has little effect on poverty, but costs government revenue between £20 million a year and £36 million, depending upon compliance changes.

Table 10 Impact of Compliance and Benefit Disregards on Mother with Care's Employment

Policy:	Current Compliance: Percentage of MWCs:			80% Compliance: Percentage of MWCs:		
	No Work	Part Time	Full Time	No Work	Part Time	Full Time
Raise IS disregard to £15 and reduce WFTC disregard to £15	59.3	19.1	21.6	57.1	22.0	20.9
Reduce WFTC disregard to £15	58.3	19.8	21.9	56.0	23.0	21.1
Raise IS disregard to £15	56.0	22.5	21.5	54.7	24.0	21.3
Baseline Reform:						
IS disregard = £10						
WFTC disregard = full	55.1	23.3	21.6	53.3	25.3	21.4
HB disregard = £15						
WFTC take-up = 65%						
Raise HB disregard to full	53.7	25.4	20.9	50.8	29.3	20.0
Reduce IS disregard to £0	53.2	25.0	21.9	50.0	27.9	22.1
Raise WFTC take-up to 95%	51.8	30.8	17.5	49.4	33.7	16.9
Raise HB disregard to full, reduce IS disregard to £0, raise WFTC take-up to 95%	48.7	34.8	16.6	43.3	42.0	14.7

Table 11 Impact of Employment Responses on Mother with Care's Income and Poverty and Government Revenue

Policy	Percentage of MWC Children in Poverty		Impact on Government Revenue (£ b)	
	Current Compliance	80% Compliance	Current Compliance	80% Compliance
Raise IS disregard to £15 and reduce WFTC disregard to £15	25.7	21.5	- 0.72	+ 0.06
Reduce WFTC disregard to £15	25.8	22.4	- 0.61	+ 0.24
Raise IS disregard to £15	24.1	20.7	- 1.06	- 0.47
Baseline Reform:				
IS disregard = £10				
WFTC disregard = full	24.2	21.3	- 0.99	- 0.30
HB disregard = £15				
WFTC take-up = 65%				
Raise HB disregard to full	24.1	21.1	- 1.19	- 0.66
Reduce IS disregard to £0	24.6	22.6	- 0.83	+ 0.04
Raise WFTC take-up to 95%	21.7	18.5	- 1.60	- 0.98
Raise HB disregard to full and reduce IS disregard to £0 and raise WFTC take-up to 95%	21.9	18.8	- 1.76	- 1.25

An alternative means for enhancing employment participation and reducing poverty is an increase in the WFTC take-up rate. Indeed, if the dual behavioural responses of increasing compliance to 80% and raising WFTC take-up to 95% were achieved with the introduction of Child Support reforms, the proportion of non-workers among MWCs is estimated to fall from 56.2% to 49.4%, while those working part-time would rise from 22.7% to 33.7%. The drawback is that the proportion working full-time is estimated to fall from 21.2% to 16.9%. Such a change would also be very costly to government revenue.

8. Conclusions

This analysis shows that Child Support payments do play an important role in lifting the children living in first families out of poverty. Moreover, the evidence suggests that Child Support does not raise the risk of poverty amongst the children of second families living with non-resident fathers to anywhere near the extent that it lowers the risk for children in first families. The reforms proposed in the White Paper could eliminate some of the perverse features of the existing Child Support system and would reduce the computational demands on the CSA to allow existing resources to be redeployed towards compliance activity. But the White Paper makes no attempt to substantiate the extent to which these changes would promote the welfare of children.

One of the main conclusions from this analysis is that changes in compliance are going to be very important for the impact of the proposed Child Support reform on net incomes, poverty rates and the cost of the reform to the government. Yet very little evidence to make an informed estimate of the likely changes in compliance. Indeed, the White Paper's target of 80% is not an estimate but a figure that is driven by the reform being required to ensure that the impact on government revenue is neutral. It is not, in any way, founded on concrete empirical evidence concerning the determinants of compliance.

Based on a sample using survey data on all parents living separately and assuming no employment responses, our analysis suggests that 80% compliance is indeed about the level required for a revenue neutral package. However, only 60% compliance is the breakeven point for income and poverty outcomes. Below this point, average income for mothers with care falls with the implementation of the

reform, while above this point, average incomes and child poverty rates for the non-resident fathers fall below the levels under the current system. The child poverty rates for mothers with care are likely to be reduced by reform as long as there is a reasonable improvement in compliance.

Our analysis suggests that it is unlikely that any group will be substantially adversely affected by the reforms, within the plausible range of compliance changes. There are no large increases in poverty rates or dramatic falls in average net incomes under any compliance outcome, thanks, in part, to the cushioning effect of the benefit system. The Income Support disregard is particularly instrumental in protecting mothers with care against poverty, although the corresponding work disincentive could substantially mitigate the effectiveness of this protection. Overall, the proposed entire package of reforms is unlikely to have any large adverse consequences for employment behaviour and may even raise participation rates. This is especially reassuring in light of the theoretical possibility that the negative impact of the Income Support disregard could have outweighed the positive effect from the increased WFTC disregard. Increases in WFTC take-up could be an alternative means of raising employment participation and reducing poverty, although there are costs in terms of full-time employment and government revenue.

The degree of certainty about the potential effects of any reforms to the Child Support system is severely limited by a lack of empirical evidence on how different elements of any system affect compliance, employment responses and household formation. The White Paper could provide an opportunity to discover what works effectively, but only if it is implemented in such a way which allows useful evaluation. For example, randomising the size of the Income Support disregard would allow the identification of both compliance and labour supply effects. Staggering the implementation might also help to introduce an “experimental” element to the reform. Naturally, improved data would be required to assess the implications of these effects and the regular statistical work of the CSA could play an important role. Moreover, only minor changes in the FRS are required to allow us to identify non-resident parents and we regard this as an essential pre-requisite to effective evaluation. A more ambitious extension to FRS would be to match parents with care and non-resident parents.

Regardless of the policy choices made in this current round of reform, both further research and the evaluation of the implementation of reforms are essential to enhance our understanding of how to create a fair and workable Child Support system which best provides an adequate standard of living for the children involved.

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