The minimum wage, taxes and benefits

How the minimum wage interacts with the tax and benefit system

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Executive Summary

Key points

1. The number of hours worked at the minimum wage is more important for determining net income in relation to the tax benefit system than the hourly rate of pay. This is because entitlement to benefits under the current system is often determined by the number of hours worked, for instance, a single adult must work at least 30 hours to qualify for Working Tax Credits.
2. There are circumstances in which working more at the minimum wage is not financially worthwhile. This is generally at small numbers of hours (when each extra pound of earnings leads to an equivalent loss in benefits) and for owner-occupiers.
3. Our interviews with employers showed that these limitations were understood, up to a point, by low paid employees. Over half said they had received staff feedback relating to a pay rise reducing an employee's in-work benefits and affecting their decisions regarding the number of hours they wanted to work. Employers reported that working mothers in particular expressed a strong preference for working 16 hours and no more.
4. This sets challenges for employers when it comes to designing rotas or providing cover for staff on leave or absent through sickness and staff training, or even increasing hours when demand is high.
5. A specific example of this would be couples with children in rented accommodation. For minimum wage earners working between 25 and 50 hours (between the couple), the Marginal Effective Tax Rate (METR) is close to 100%, meaning additional hours bring in almost no additional income.
6. In some circumstances, the marginal effective tax rate can rise above 100% - that is, people are financially worse off working slightly more. At the other extreme, the marginal deduction rate can fall below zero, meaning an extra hour of earnings increases income by more than the pay received for that hour. Such circumstances are very limited, though, and would be avoided by, for instance, working an extra five hours per week (i.e. one per day) rather than a single extra hour.
7. Just under half of employers reported that staff have asked not to receive bonuses due to the knock-on effect on their benefits. Some employers withhold this money, others continue to pay it regardless. Most feedback from staff on these issues has been from part-time working mothers.

8. Importantly just one employer said changes in the tax system had an influence on pay-setting, as opposed to rota setting, and none said that changes in the benefits system had any effect. None of the employers in the sample take net pay into account when setting pay levels.
9. Under Universal Credit, net income progression as hours at the minimum wage increase is much more even, due to the removal of hours conditions and a smoothing of taper rates.
10. One of the big differences between the current and proposed systems is the treatment of owner occupiers. Under Universal Credit, support for renters is more generous, and support for owner occupiers markedly less so.
11. Although Universal Credit lowers the taper rates and so the marginal effective tax rates, these both remain quite high, at over 70% for substantial parts of the distribution. So the issue of high marginal tax rates for low earners will not disappear with Universal Credit.

Outline of methodology

The report that follows is in four chapters. It begins with a review of the existing literature, drawing out some key themes to investigate later in the report.

This is followed by modelling of the tax and benefits system, looking at how the incomes of different types of low earners are affected by the number of hours they work (in chapter 2), their rates of pay, and the benefits they receive (in chapter 3).

This spreadsheet model was developed by NPI for analysing these types of question. It uses inputs from official sources on parameters such as values of benefits, levels of disregards and so forth. It then allows the user to vary, for instance, the number of hours a person works to look at the impact on overall income.

Chapter 4 takes this analysis up to the population level, looking at the total number of low earners who receive various benefits. It focuses mainly on Working Tax Credits and Housing Benefit.

This section relies on the Family Resources Survey, which contains data on individuals and households, both of which are needed to assess the interactions of pay and benefits. The data covers the period 2010/11 to 2011/12.

The final chapter, Chapter 5, covers the qualitative research carried out with employers by our partner for this project Incomes Data Services (IDS). IDS interviewed employers in low-paying sectors to see the extent to which the knowledge of the benefits system affected

their pay setting policies. By doing this, we get a more rounded view of this interaction, from the perspective of the employee and the employer.

In the appendix we have included the topic guides for the qualitative interviews.

1. Summary of literature

This section reviews the existing literature on the interaction between earnings, taxes and benefits and the impact of this on household incomes. It will consider both total incomes and marginal effective tax rates amongst families in different situations. We begin by introducing some of the key terms/concepts relevant to this research; income, earnings and marginal effective tax rates.

Following this, we draw on existing literature to consider the structure and level of the National Minimum Wage (NMW), the positioning of NMW workers in the income distribution, the composition of net income for those in NMW jobs, and the impacts of Universal Credit reform on NMW workers.

We subsequently discuss the groups or family types that are most likely to be in receipt of the NMW. These groups are then analysed in greater depth in terms of the differential impacts of earnings, taxes and benefits – including any likely changes under Universal Credit – on their household incomes and marginal effective tax rates.

Income, earnings and marginal effective tax rates

Income can derive from a number of sources including earnings from employment, benefits and tax credits, income from a partner or spouse or unearned incomes (e.g. interest on stocks or from banks and building society accounts, dividends on shares and rental income). Total income before taxes or deductions are taken in account is known as gross income. Net income is an individual or household's income after taxes and other deductions. Earnings refer only to the income an individual receives through work.

The combined effect of income tax, National Insurance and the withdrawal of state welfare benefits on an individual's income is known as the marginal effective tax rate (METR). The METR is the proportion of every additional pound that an individual loses due to income taxes, National Insurance contributions and any deductions in tax credits and reduced welfare entitlements. As income increases families are subject to the withdrawal of means-tested benefits and tax credits all of which contributes to the METR. For instance, a worker living in rented accommodation receiving Housing Benefit, Working Tax Credit and Child Tax Credit may face a METR of 95.5 per cent – a combination of income tax, National Insurance and the taper withdrawal of the means-tested benefits and tax credits he/she is receiving. As such, METRs are a useful way of measuring the impact of the tax and benefits system on workers' incomes and their incentives to increase their earnings.

Where are NMW workers in the income distribution?

Families with NMW workers can be found across the working age income distribution, but as Brewer, May and Phillips note, they typically occupy an intermediate position between workless families and families paid above the NMW (2009:28)[1]. However, the position of NMW families in the income distribution will vary depending on whether the NMW is a primary or secondary source of earnings. Families whose main source of earnings is from a NMW job tend to be in the bottom half of the income distribution, peaking in decile groups 3 and 4 while families for whom a NMW job is a secondary source of earnings tend to be concentrated in the upper half of the income distribution, peaking in deciles 6 and 7 (Brewer and De Agostini 2013:2)

What makes up the income of those in NMW jobs?

The proportion of total net household income that derives from earnings for those on the National Minimum Wage will vary depending on a range of factors. A key factor influencing the composition of net income for NMW workers is the tax and benefits system. The amount of income that is derived from NMW earnings will vary also depending on whether the NMW job is the main or secondary source of earnings. Incomes from a second job or self-employment (NMW or otherwise), from a partner or spouse or incomes that are 'unearned' will also impact on the proportion of income that comes from NMW earnings (Brewer et al., 2009). Accordingly, receipt of the NMW does not always imply that a person lives in a low income household. As a result, it is difficult to establish the redistributive effect of the NMW as there are many other government policies (e.g. tax credits, in-work benefits and child benefit) devised to increase the incomes of low income households in work (Coates, 2007).

The tax and benefits system

The tax and benefits system interacts with the earnings of NMW families in different ways. The impact of the tax and benefits system is most likely to be a positive one for workers where the NMW is received for a main job (or where the NMW worker is the main earner) as they are more likely to have lower earnings than those receiving the

[1] The position of NMW workers in the income distribution will depend on the population considered. In this review we use the whole working age population (including those out of work). However, as noted in the Low Pay Commission: National Minimum Wage report in 2009, the use of the whole population may suggest that the minimum wage is not particularly well targeted at the poorest households. This is on account of the fact that the poorest households generally do not have anyone in work. If our analysis of NMW workers in the income distribution is restricted to only those households where at least one member is in work, it appears that the minimum wage is targeted most at the lowest household earnings deciles.

NMW for a second job or who are secondary workers. As such, they are more likely to be entitled to benefits and tax credits and thus typically face a lower income tax and National Insurance liability. As Brewer et al. find amongst families where the main worker is paid the NMW, around half are net gainers from the state, compared to around one in seven net gainers amongst families where either the NMW worker is the second worker or where the main earner is paid above the NMW (2009: 23).

Particular groups such as families with children and disabled people are also more likely to gain from the tax and benefits system as they are typically entitled to much more income from benefits and tax credits (Brewer et al., 2009, Brewer and De Agostini 2013). For instance, 85 per cent of families with children (where the main worker is in receipt of the NMW) are net gainers via the tax and benefits system. This compares to 99 per cent for families with children that are out of work (unsurprising given that benefits are likely to be their main source of income) and 28 per cent for families with children where the main earner earns above the NMW (2009: 23). Accordingly, as Brewer and De Agostini note low income couple families with children whose primary source of earnings is a NMW job derive, on average, no more than 60 per cent of their net income from NMW earnings while for lone parent households it is less than 45 per cent (2013: 28) compared to almost 100 per cent for a low income single adult and around 70 per cent across all groups (2013:26).

Non-means tested benefits aside, as income increases families are subject to the withdrawal of means-tested benefits and tax credits – in turn, leading to higher marginal effective tax rates (METRs) for families. For instance, a person subject to the Income Support (IS) taper faces an METR of 100 per cent, whilst a low income worker in rented accommodation may face a rate of 95.5 per cent rate (a combination of Income Tax, National Insurance, and the withdrawal of Housing Benefit, Working Tax Credit or Child Tax Credit)[2].

According to Brewer et al. (2009), those with the lowest METRs amongst workers on the NMW are either concentrated at the lowest or highest ends of the income distribution. In the case of the former this is because they either earn below the tax credits threshold and thus are not subject to them being tapered away or are ineligible for tax credits. Those found higher up the income distribution with low METRs are typically in secondary part-time work within couples where the NMW job is earning them too little for them to be liable for income tax. Conversely, the highest METRs amongst NMW workers are most likely to be found in decile groups 2-4. Lone parents also had high METRs. These high METRs are mainly on account of receipt of Housing Benefit.

[2] Note: the METRs referred to here are those faced by persons in these situations under the pre-Universal Credit system.

A primary or secondary source of earnings

Families receiving the NMW in their main job are more reliant on NMW earnings than those earning the NMW in a second job. Brewer and De Agostini (2013) find that for families for whom a NMW job is the main source of earnings, (and who are in the bottom half of the income distribution) gross earnings from NMW jobs typically make up around 70 per cent of net income. For families where a NMW job is a secondary source of earnings around 30 per cent of their income is derived from NMW jobs (2013, 4).

Incomes from a second job or self-employment

Brewer et al. find that for a small number of people earning the NMW, incomes from a second job or self-employment can significantly impact on the proportion of household income that derives from NMW earnings. Around 7 per cent of workers paid the NMW in their main job have a second job or are self-employed. Half of these workers earn on average £67 per week, while the other half earn considerably more with an average of £144 in additional earnings coming from a second job or self-employment (2009: 20-21).

Incomes of a partner

The proportion of NMW workers that have a spouse or partner is higher than the proportion of non-workers, but lower than the proportion of high earning workers. Brewer et al., in their 2009 study, found that around 31 per cent of those earning the NMW in their main job lived with a spouse or partner. The proportion for those earning the NMW in a second job was 93 per cent (2009: 21). Where NMW workers have partners three-quarters of partners have private incomes of more than £100 per week and half have incomes greater than £295 per week.

Unearned incomes

Unearned income or 'investment income' is any income that a person has which has not been earned by them in employment (including when self-employed) and which is not a pension. Unearned income can include interest on stocks or from banks and building society accounts, dividends on shares and rental income (HMRC, 2014). According to Brewer et al., a lower proportion of workers paid the NMW for their main job have unearned income than non-workers and workers paid above the NMW. 45 per cent of NMW workers had some unearned income, compared to 46 per cent for those out of work and 64 per cent for workers paid above the NMW (2009:21).

The impact of Universal Credit on the incomes and marginal effective tax rates of NMW families

Universal Credit will supersede most existing means-tested benefits and tax credits for those of working age. These include a number of benefits that apply to NMW workers: Income Support (IS); income-based Employment and Support Allowance (ESA); Housing Benefit (HB); and Child Tax Credit (CTC) and Working Tax Credit (WTC).

The impact of the reform on incomes is that mean incomes will be marginally higher after UC, but will primarily benefit poorer families, with the bottom six-tenths of the income distribution gaining on average, and the wealthiest four-tenths losing out slightly (Brewer et al, 2011:3). As NMW workers typically occupy an intermediate position between workless households and those paid above the NMW, NMW workers are likely to gain more/lose less than those paid above the NMW, but gain less/lose more than those not in work.

The reform will also impact on the METRs of NMW workers. The expected trend is for there to be more workers facing high METRs, but for the highest METRs to be lowered (Brewer and De Agostini, 2013: 29). The evidence suggests that while NMW workers who earn the NMW as a secondary source of earnings typically have lower METRs than those for whom it is the main source of earnings in their family, the impact of UC on incentives appears similar for both groups. However, the former are likely to lose more in terms of income as their household incomes are higher on average than workers earning the NMW in their main job.

The impact of UC on the METRs of NMW workers will vary by family type. For instance, under UC, single adults will see their METRs rise, lone parents and couples with children for whom the NMW is their main source of earnings will see their METRs fall. These falls occur because these family types are more likely to be entitled to HB if in work, which can lead to very high METRs. Couples without children will see the highest METR fall under UC (2013:29).

The characteristics of NMW workers

The typical characteristics of workers receiving the National Minimum Wage (NMW) are well documented. Work on behalf of the Low Pay Commission (see, Bryan & Taylor (2004 and 2006) Brewer, May and Phillips (2009), Low Pay Commission (2013)) has found that workers in receipt of the NMW are more likely to be women, under the age of 25, single, with fewer qualifications, from an ethnic minority background, and/or living in

social housing than other workers. They also found that NMW jobs were more likely than other jobs to be part-time and were concentrated in certain sectors, particularly retail and hospitality.

Other groups highlighted as containing high proportions of minimum wage workers include disabled people (Low Pay Commission 2013) and lone parents (Brewer et al., 2009). Meanwhile, Brewer et al. find that while couple families with dependent children are least likely to be in a NMW job that is a primary source of earnings, they are most likely to be in a NMW job which is a secondary source of earnings (2009:15). Couple families with dependent children also make up around 40 per cent of NMW households (Bryan and Taylor, 2004: 1).

The impact of the tax and benefits system on different groups

In this section we draw on the literature to provide an analysis of how the NMW interacts with the tax and benefits system for different groups. The focus of our analysis will be single adults, lone parents, couples with children, under 25s and those living in rented accommodation. The analysis that follows centres on these groups on the basis that they are more likely than other groups to be in receipt of the NMW and the tax and benefits system is likely to have a differential impact on these groups as they are entitled to specific benefits and tax credits. Accordingly, we do not explore the interaction of the NMW and the tax and benefits system for those with fewer qualifications, women or those from ethnic minority backgrounds, as these groups do not see any direct differential impacts on their net income as a result of the tax and benefits system. In addition to this we will omit disabled people from this analysis as they make up a relatively small proportion of those in NMW jobs[3]

Single adults

In their 2009 report, Brewer et al. looked at family types by NMW status. Using LFS data from 2007-08, they found that the majority (51.6 per cent) of those earning the NMW as the main source of earnings were single adults without children. Single adults without children in receipt of the NMW tend to be concentrated between deciles 1-4 of the working age income distribution (2009:28)

Low-income single adults derive almost 100 per cent of their net income from NMW earnings (Brewer and De Agostini, 2013). Alongside universal benefits/tax credits single

[3] In 2007/08, around 12 per cent of people paid the NMW as a main source of earnings were disabled. This compares to around 24 percent for renters, 32 percent for under 25s and 52 per cent for single adults (Brewer et al. 2009: 16).

adults may be entitled to the Single Person's Discount (a 25 per cent discount on council tax liability if a person is the only resident in a property). On the whole, however, the proportion of single adults receiving no state support is higher than other family types[4] (Family Resources Survey, 2013). As such, given that single adults in NMW jobs are concentrated in deciles 1 to 4 of the income distribution and derive almost all of their net income from earnings, they are likely to have low METRs.

The goal of UC (to reduce the METRs of those who currently have high METRs) will inevitably mean that some households who currently have low METRs will see a rise. Single adults are one such group. This is mainly on account of the fact that UC will extend means-tested benefits to more of this group than currently receive tax credits or benefits when in work (Brewer and De Agostini, 2013:29). Meanwhile, the estimated changes to mean weekly equivalised disposable income are negligible, amounting to 70 pence per week or a .03 per cent increase according to Brewer and De Agostini (2013:22).

In their report 'Universal Credit: A Preliminary Analysis' Brewer, Browne and Jin (2011) provide a useful scenario to illustrate in detail how UC will impact on this group. The example they provide is a single, disability-free adult aged over 25, earning £6.50 an hour, with a Local Housing Allowance entitlement of £60 per week and no unearned income. Under UC this person would gain from UC if he/she works fewer than 30 hours per week due to the lower withdrawal rate, but lose out if he/she works between 30 and 39 hours a week (and is currently entitled to Working Tax Credit).

Furthermore, Brewer et al (2011) find that while there is no direct gender dimension to UC, the reform will have a differential impact on single adults depending on whether they are male or female. Around 10 per cent of single women will gain under UC compared to fewer than 5 per cent of single males.

Hirsch and Hartfree have modelled the impact of UC on the net income of a single working age adult without children. They find that after the first £25 earned, UC is reduced by 65 per cent of additional wages (net of tax). For a NMW worker this means that every additional working hour will bring in no more than £2 in disposable income. (2013: 8).

Lone parents

Brewer et al. (2009) found that lone parents are most likely to work in a NMW job that is their family's main source of income: 17 per cent of those earning the NMW as their

[4] Other family types are lone parents, couples with dependent children and couples without children (married or in a civil partnership and cohabiting).

main source of earnings were lone parents. This compares to around 4 percent of those earning above the NMW (2009:15). Lone parent NMW families are concentrated in deciles 3 and 4 of the working age income distribution (Brewer et al., 2009:28).

Lone parents typically derive less of their income from earnings than other family types. This is mainly on account of high levels of benefits entitlements amongst this group. According to the most recent Family Resources Survey only 3 per cent of lone parent families are not in receipt of state support (2013: 44). Further to this, lone parents[5] are more likely than other family types to be entitled to HB if in work (Brewer and De Agostini, 2013: 29)[6]. This may in turn be linked to the fact that lone parents with dependent children are more likely to rent their homes (71 per cent) than own them (29 per cent) and are more likely than other groups to be living in the social rented sector (English Housing Survey, 2013:10). As a result lone parents are likely to have higher METRS than other groups.

An estimated 610,000 lone parents (33 per cent) will gain under UC, 370,000 (20 per cent) will lose out in the long term and the remaining 47 per cent will be unaffected either on account of overlaps between UC and the preceding system (36 per cent) or because they are currently not receiving any means-tested benefits or tax credits (11 per cent) (Brewer et al, 2011: 41). Lone parents with one, two or three children will be worse off across the whole income range than under the 2010 system (CIH, 2012: 3) and will lose more than other family types on average in the absence of transitional protection (Brewer et al, 2011: 41).

On the whole, however, lone parents are likely to see large falls in their METRS under UC (Brewer et al, 2011). Some of these will be lone parents currently facing multiple withdrawals of benefits and tax credits, who will benefit from the single taper under UC. Others will be lone parents currently receiving tax credits but who will not be entitled to any UC. So while many lone parents will see a loss in their net income under UC, these lower METRs will typically mean increased work incentives for lone parents as they lose less than before for every additional hour worked.

These work incentives are likely to be increased further for lone parents if the Government's plan to pay an 85 per cent childcare tax credit to parents who earn above the income tax threshold under UC is implemented. This proposal, as Hirsch and Hartfree noted, can help raise incomes of low-paid families by working longer hours as

[5] and couples with children for whom the NMW is their main source of earnings

[6] Overall, approximately 48 per cent of single parent households receive Housing Benefit compared to 9 per cent of couples with children and 4 per cent of couples without children (Family Resources Survey, 2013: 44).

there is a jump in support at or above the income tax threshold that previously did not exist (2013: 18).

Brewer et al (2011) also modelled the impact of UC on lone parents. Using the example of a lone parent with two children and no disability, earning £6.50 per hour, with no housing costs and no unearned income they find that if he/she works for less than 16 hours a week, he/she will have a net gain under UC and will not be subject to any deductions. In fact, he/she can work up to 23 hours per week under UC before facing any deduction. This is mainly on account of the substantial earnings disregard (the amount of earnings disregarded before the UC taper is applied to earnings) under UC for lone parents. Comparing this to the current system, the same individual if working fewer than 16 hours a week would face an METR of 100 per cent after an earnings disregard of £20 per week.

If this individual works more than 30 hours per week, however, under UC he/she will lose out slightly. As Brewer et al note, this appears to be on account of the removal of Working Tax Credit[7] and the fact that the METR for those working 30hours or more per week is 76.2 per cent under UC, compared to 73 per cent under the previous system. There will also be obvious adverse implications for lone parents on certain incomes (i.e. maintenance payments from former partners) that were previously not counted as incomes now being counted as such under UC.

Finally, the impact of the reform on lone parents will likely depend on whether the parent is male or female. Brewer et al (2011) find that single mothers will tend to benefit more under the reforms[8]. They find that around 35 per cent of single mothers will be winners under UC, seeing gains in their incomes of around 5 per cent. This compares to 25 per cent of single fathers who will see gains of around 4 per cent. Single mothers are also more likely to lose less if they do lose, losing out on average by around 8 per cent, compared to an 11 per cent loss for single fathers. This female favouring pattern within UC may be due to a range of factors. For instance, it may be the case that lone fathers are working more hours and thus have higher earnings.

Couple families with children

NMW workers living in a couple with children are most likely to be NMW workers whose earnings are a secondary source of income (Brewer et al 2009, 15). Couples with children with a NMW worker are concentrated in deciles 3 to 5 of the working age

[7] For lone parents, maximum WTC entitlement will be £77.79 but the Universal Credit personal allowance will be £72.25 (Brewer et al, 2011:43).
[8] In the absence of transitional protection

income distribution (Brewer et al., 2009; Brewer and De Agostini, 2013). This compares to deciles 5 to 7 for couples without children.

Couple families with children who are on a low income will typically derive less of their income from earnings than couple families without children but more than lone parents. As with lone parent families, this is mainly because low-income families with children are entitled to considerably more income from benefits and tax credits than low-income families without children. For instance, while a low income single adult will derive almost 100 per cent of their net income from NMW earnings, this drops to 60 per cent or less for low-income couples with children whose primary source of earnings is the NMW (Brewer and De Agostini, 2013: 26).

The METR for NMW couples with children is relatively high – second only to that of lone parents (Brewer et al, 2009: 38). This is likely related to the additional income low-income families are entitled to via the tax and benefits system. However, when NMW earnings are derived from a second job or a secondary worker – which is often the case with NMW couple families with children, METRs are considerably lower as their individual earnings fall below the income tax personal allowance and they are less likely to be entitled to benefits or tax credits (Brewer et al, 2009: 39).

Impact of UC on couples with children

Under UC, NMW couple families with children will see their weekly disposable income fall by around .03 per cent (or approximately 90 pence) under UC (Brewer and De Agostini, 2013: 22). On average, however, couples with children (for whom the NMW is the primary source of earnings) will see large decreases in their METRs. As with lone parent families, this is most likely on account of the high METRs faced by low-income NMW couple families in receipt of HB (Brewer and De Agostini, 2013: 29). As such, UC will typically improve the incentives of NMW families to increase their earnings.

Hirsh and Hartfree (2013) have modelled the impact of UC on the disposable income of second earners in couple families with children. They find that the disposable income of couple families under UC will vary for couple families with children depending on the age of the children. Families with young children will see their disposable income plateau as they move from part-time to full-time work. This is also the case amongst lone parent NMW families although the plateau is lower for lone parent families. For couple families with children in secondary school no such plateau exists, as such families do not need to pay for childcare costs. (Hirsch and Hartfree, 2013: 12).

Living in rented accommodation

Brewer et al. find that NMW workers (where the job is either a primary or a secondary source of earnings) are more likely to live in rented accommodation, particularly accommodation rented from a social landlord than their higher paid counterparts (2009:17). Around 18 per cent of those whose main source of earnings derives from a NMW job live in social housing, double the proportion of those paid above the NMW. Meanwhile, around 6 per cent live in privately rented accommodation compared to 5 per cent amongst those paid above the NMW (2009: 17). Roughly corresponding with the findings of Bryan and Taylor (2004), Brewer et al. also find that the likelihood of living in accommodation purchased via a mortgage is lower amongst NMW workers (52 per cent amongst those earning the NMW as a primary source of earning compared to 61 per cent of those paid above the NMW).

NMW workers living in rented housing are likely to derive a smaller proportion of their income from earnings than those living in owner-occupied housing. This is partly on account of higher levels of benefit entitlements in the social and private rented sectors. According to the English Housing Survey, in 2011-12, 64 per cent of social renters and 26 per cent of private renters received Housing Benefit. Meanwhile, 65 per cent of social renters received Council Tax Benefit, compared with 29 per cent of private renters and 11 per cent of owner occupiers (EHS, 2013:27). While the literature does not provide a breakdown of benefit receipt by tenure and NMW status, it is likely that benefit entitlements amongst NMW workers will be higher in the rented sector (NMW workers are only entitled to HB in rented accommodation). If this is the case this will contribute to higher METRs for NMW families living in rented accommodation.

There is little or no literature on the likely impact of UC on the net incomes of tenants that are earning the NMW. This is something we will seek to remedy later in this report. In terms of the impact of UC on METRs amongst renters, should the pattern amongst NMW workers mirror that of the population as a whole with those that are renting being more likely to receive benefits than those that are not, NMW workers that are renting will have higher METRs than those that are not renting. As mentioned earlier, the UC system will see METRs fall slightly on average, with big reductions in the number facing very high (80 per cent or higher) METRs.

Under 25s

NMW workers are more likely than other workers to be young adults. The large proportion of young people in receipt of the NMW is well documented in the NMW literature. For instance, Brewer et al. (2009) found that around 32 per cent of NMW workers earning the NMW in their main job were aged under 25, compared with 13 per

cent paid above the NMW (2009: 14). Looking specifically at the 16-17 age group, the most recent Low Pay Commission (2013) review of the NMW finds that the second highest proportion of minimum wage workers (12 per cent) were among young people aged 16-17. Meanwhile, using LFS data, the report also found that 87 per cent of 16-17 year olds were paid at or below the adult NMW rate.

There is no existing literature that provides a breakdown of composition of income by age and NMW status. However, the most recent Family Resources Survey illustrates that only 22 per cent of households headed by someone aged under 25 were in receipt of benefits and 8 per cent were in receipt of tax credits – lower than any other working-age age group. On average, however, under 25s derive more of their gross income from non-disability related benefits and tax credits and less from wages and salaries than any other working-age age group (Family Resources Survey, 2013: 33).

A recent report by the Chartered Institute for Housing 'Making work pay: Universal Credit & low income working households' found that single people aged under 25 across the whole income range will be better off than under the 2010 system (CIH: 2012: 11). This is at least in part due to the in-work support afforded to under 25s under the new system that was previously not available to them (DWP, 2012:52).

However, the personal amount will be lower for some young people than it was previously. As a result, households headed by a single parent are likely to see substantial losses in their disposable income. While personal allowances under the current system differ between single under 25s with and without children, under UC this will no longer be the case. Single parents under the age of 25 will now receive the same rate allowance as an under 25 year old without children (Gingerbread, 2013:4).

Summary remarks

The impact of Universal Credit on the incomes and marginal effective tax rates of NMW families will vary considerably by family type. Under UC, NMW couple families with children will see small falls in their weekly disposable income. Lone parents will lose more [9] than other family types, although there are more gainers than losers amongst this group. Lone parents under 25 are likely to experience even larger losses as a result of changes to personal allowances. Conversely, single under 25s will be significantly better off across the whole income range. Mean weekly disposable income amongst single adults as a whole will also increase, but this increase will be negligible. Meanwhile, there

[9] In the absence of transitional protection.

is little evidence on the likely impacts of UC on the incomes of tenants that are earning the NMW.

UC will typically improve the incentives of families with children to increase their earnings as both lone parents and couple families (for whom the NMW is a primary source of earnings) will see large decreases in their METRs. This is mostly on account of the high METRs faced by low income families in receipt of Housing Benefit. On the other hand, single adults will tend to see a rise in their METRs under UC as UC will extend means-tested benefits to more of this group than currently receive tax credits or benefits when in work. The differential impact of UC on the METRs of renters and under 25s is not clear.

Group	Change in income under UC	Change in METR under UC
Single adults	Small increase	Large Increase
Lone parent	Large decrease	Large decrease
Couples with children	Small decrease	Large decrease
Tenants	N/A	N/A
Under 25s	Large increase	N/A

2. Household analysis – varying rates of pay

This section uses the NPI Household tax and benefit model. The rationale for using such a model is that, while an individual works and earns the minimum wage, it is a household or family that matters for receiving benefits.

Approach

This section brings together our analysis of the tax and benefit system as it relates to low paid people and their families. We look at two things

- a brief review of how household income increases as hourly pay increases
- a more detailed analysis of how household income increases as the number of hours worked at the minimum wage increases

The reason we chose this balance – a brief review of variation by pay and a longer review of variation by hours – is simply that the latter offers up more interesting findings. Increasing hourly pay by small amounts does not really interact with the benefit system. Increasing hours worked interacts significantly.

The approach taken here has been quite methodical. First we analyse some changes in household income as hours increase. We look at the changes under the current system and under Universal Credit.

We then look at how household income increases with increasing hours worked for people earning the minimum wage. We look at different family types and different housing tenures. For each family type and tenure we look at both the income of the household and the marginal effective tax rate, i.e. how much of each additional pound earned is deducted in taxes and reduced benefits.

Choice of inputs for the household tax and benefit model

The values for weekly rents, council tax, and outstanding mortgage debt were either drawn directly or derived from the UK Minimum Income Standard (MIS) 2013. MIS is the minimum acceptable standard of living as established by focus groups of the public, but also contains standard rental and council tax values for different family types as a reference. These are based on averages for the east of England. The outstanding mortgage value (necessary to calculate the amount of Support for Mortgage Interest received) is calculated as the amount necessary to give a weekly mortgage repayment rate equivalent to the average rent used in

other calculations. This means that the case studies for renters and owner-occupiers are comparing like with like on housing costs.

The current system

The benefits we consider in the current system are Job Seeker's Allowance, tax credits and Housing Benefit. As earnings increase above the level of a disregard, Job Seeker's Allowance (JSA) is withdrawn first, pound for pound until earnings surpass the JSA level, currently £72.40.

Working Tax Credits (WTC), if the family qualifies, are more complicated. They are only introduced after a certain number of hours has been worked; 30 for singles without children, 24 for couples and 16 for lone parents. They are then "tapered" at 41p in the pound until the tax credit is removed entirely above a certain income threshold.

Housing Benefit (HB) applies only to those in rented accommodation. The income for Housing Benefit purposes is compared to the maximum rent that can be claimed, with 65% of the total income for Housing Benefit purposes excluding the applicable amount and other disregards subtracted from the maximum rent. The maximum rent can be simply the actual rent, or it may be lower in the private rented sector if a national or local cap applies.

Support for Mortgage Interest (SMI) is a benefit for low income owner-occupiers with mortgages. The interest on a mortgage is paid at a standard rate (currently 3.63%) up to £200,000, normally directly to the lender. It is counted as part of JSA/IS, and so it is lost when these benefits are lost.

Universal Credit

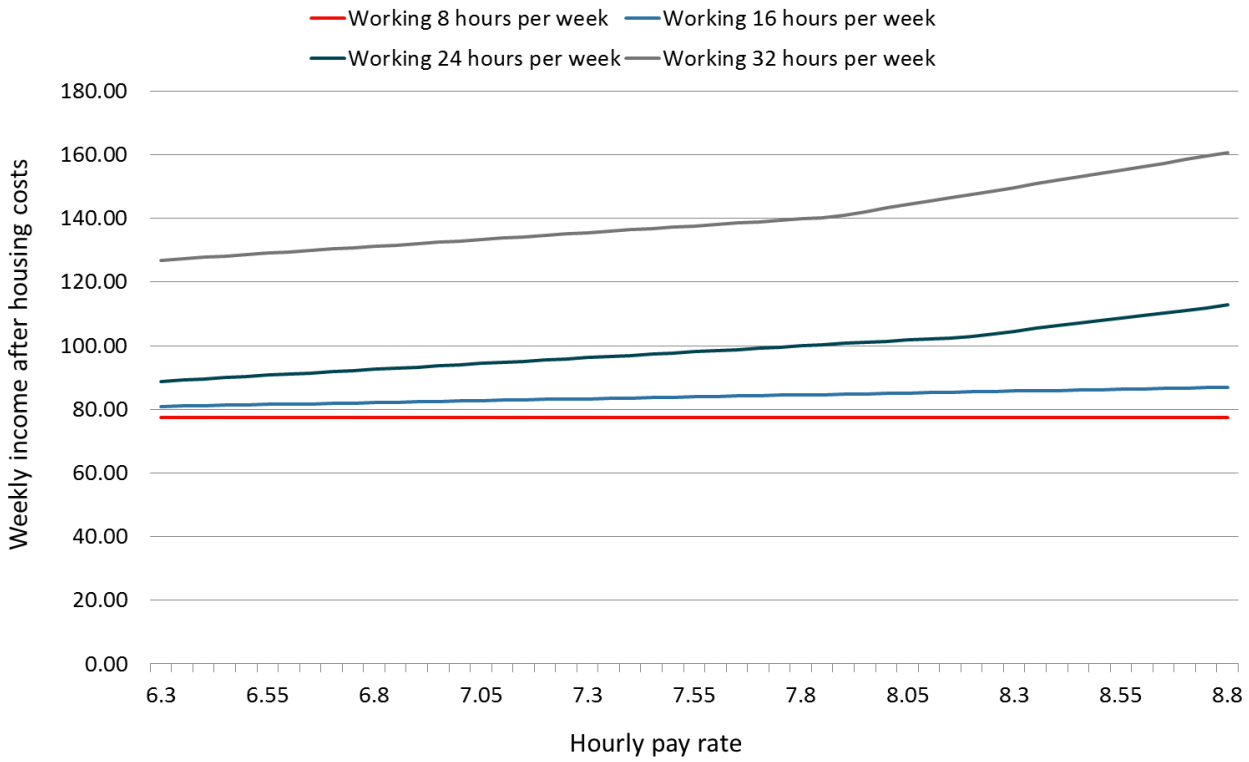
The main aim of the introduction of Universal Credit (UC) is to make the benefits system simpler. It does this by rolling six benefits into one, and smoothing out the "cliff edges" that currently result from the tax credits system. Moreover, it aims to reduce some of the very high marginal effective tax rates faced by some earners. The graphs and analysis that follow demonstrate that both these aims are in principle achieved for the groups we examine.

Varying rates of pay

In this short section, we look at how family income increases as hourly pay increases. We look first at single adults renting their accommodation, and working 8, 16, 24 and 32 hours per week at the minimum wage. We look at different rates of the minimum wage and assess the impact on incomes.

Single adult renter net income under current system

Rent: £73.22 per week, **Council tax:** £14.47 per week



Source: NPI Household Tax and Benefit model. The tax and benefit values are for 2014-15.

The graph shows the net income of a single adult working 8, 16, 24, and 32 hours per week and 5 pence increments in their hourly wage rate, starting at £6.30 per hour.

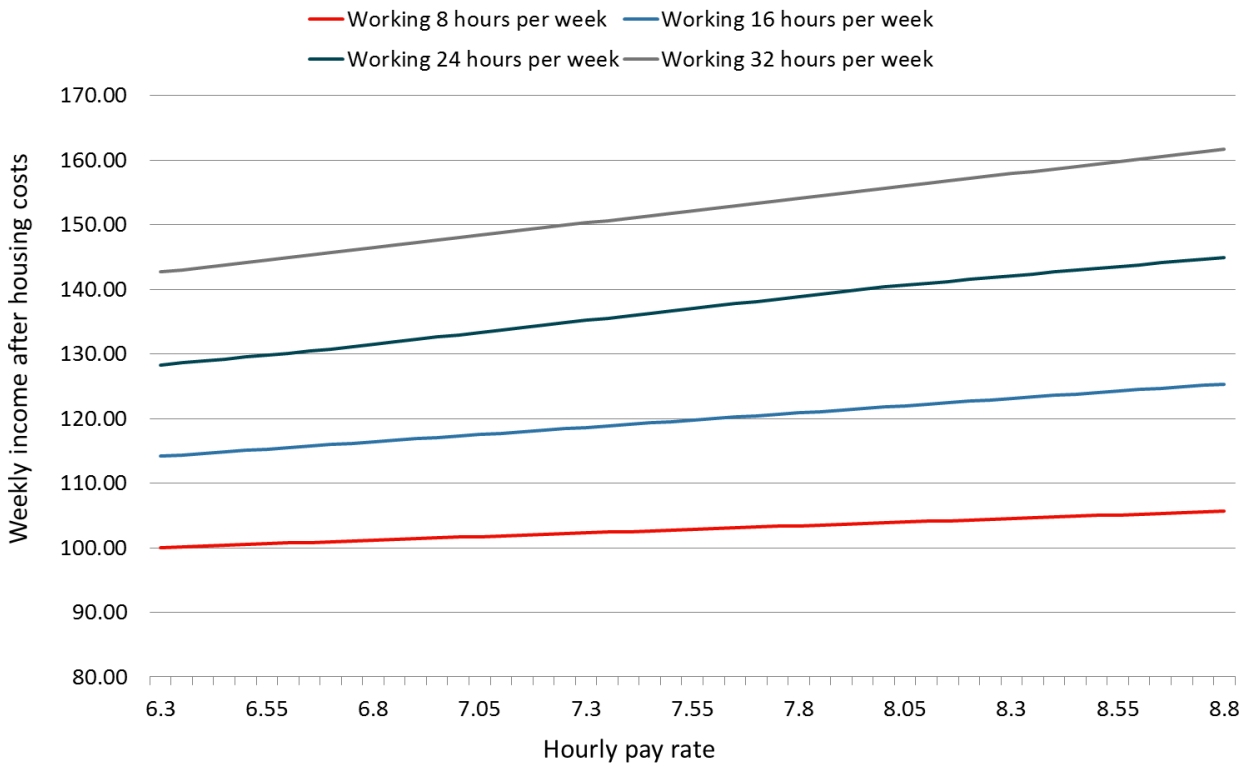
As entitlement to benefits under the current system is often determined by the hours worked, there are large differences between the lines. At 8 hours per week, net income does not increase with any pay rate between £6.30 an hour and £8.80 an hour. This is because earnings never exceed JSA, meaning the deduction rate is 100%. Thus for people in these circumstances, an increase in the minimum wage produces no financial benefit.

At 16 hours per week, net income does increase but only slowly. The individual is now working too many hours to be eligible for JSA, but still receives Housing Benefit and Council Tax Benefit. This leads to a high marginal effective tax rate. At 24 hours, the taper rate is initially the same as at 16 hours per week, but as the wage rate increases, the individual ceases claiming Housing Benefit and Council Tax Benefit, meaning more of each increase in the hourly rate is retained.

At 32 hours, the individual is eligible for tax credits but earns too much to be eligible for Housing Benefit. By £7.90 an hour, they also earn too much to be eligible for Working Tax Credits, leading to a sharper uptick in their net income line as the marginal effective tax rate ceases to include any withdrawals from social security.

Single adult renter net income under Universal Credit

Rent: £73.22 per week, **Council tax:** £14.47 per week



Source: NPI Household Tax and Benefit model. The tax and benefit values are for 2014-15.

The key difference between a single adult under Universal Credit and a single adult under the current system is that even at lower numbers of hours worked, increases in the wage rate still lead to higher net incomes. This is because earned income does not get deducted

at 100% at any point. The lack of hours conditions for renters under UC means that there are no sharp jumps in income.

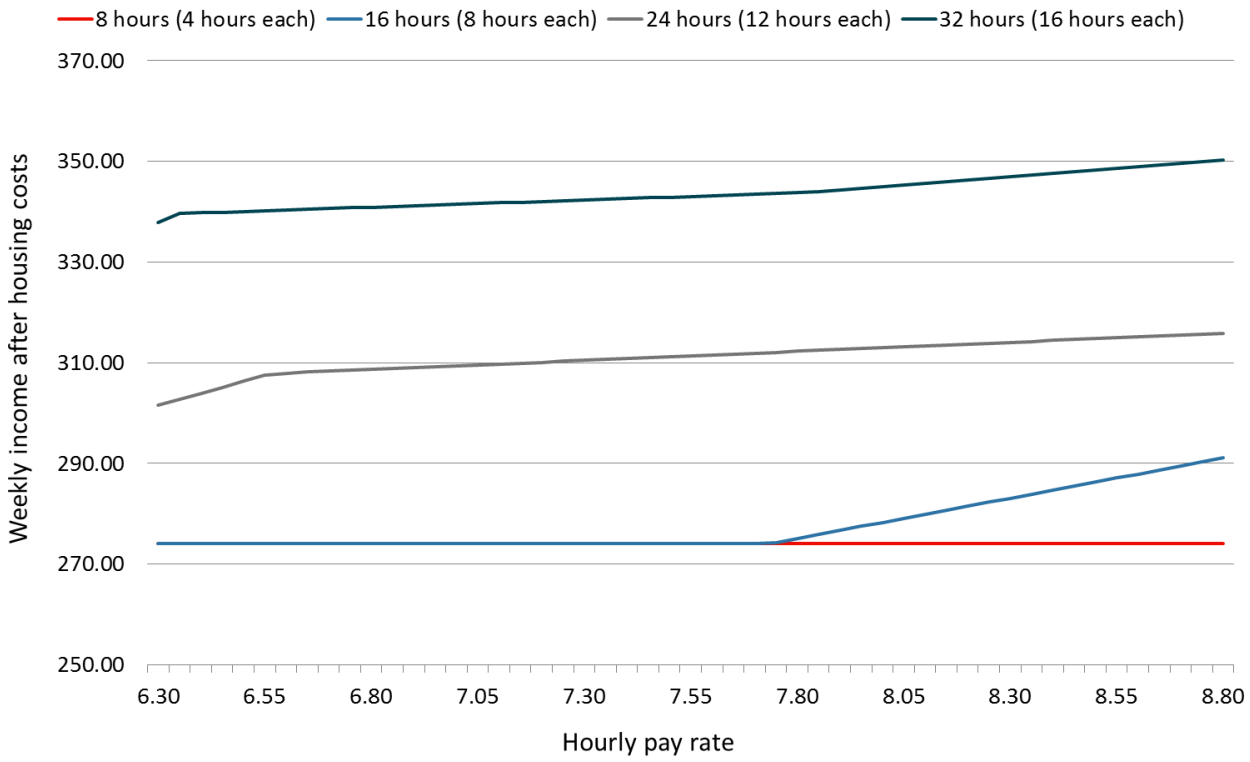
At 8 hours worked per week, the METR is consistently 72% for each 5 pence increment. This is due to having both UC and Council Tax Support withdrawn. The individual does not earn enough to pay either income tax or National Insurance. This METR is exactly the same at 16 hours.

At 24 hours, the individual faces a higher METR and thus a flatter net income line as they earn enough to pay National Insurance contributions. At around £6.70 an hour, they cease to be eligible for CTS and so the METR decreases before increasing again to 76% at £8 an hour when enough is earned to pay income tax.

At 32 hours at the minimum wage level, the individual is earning enough to pay income tax and National Insurance contributions and is ineligible for CTS. Just after the graph ends at £8.80 an hour, the individual earns too much to receive Universal Credit.

Renting couple with children net income under the current system

Rent: £86.88 per week, **Council tax:** £22.50 per week



Source: NPI Household Tax and Benefit model. The tax and benefit values are for 2014-15.

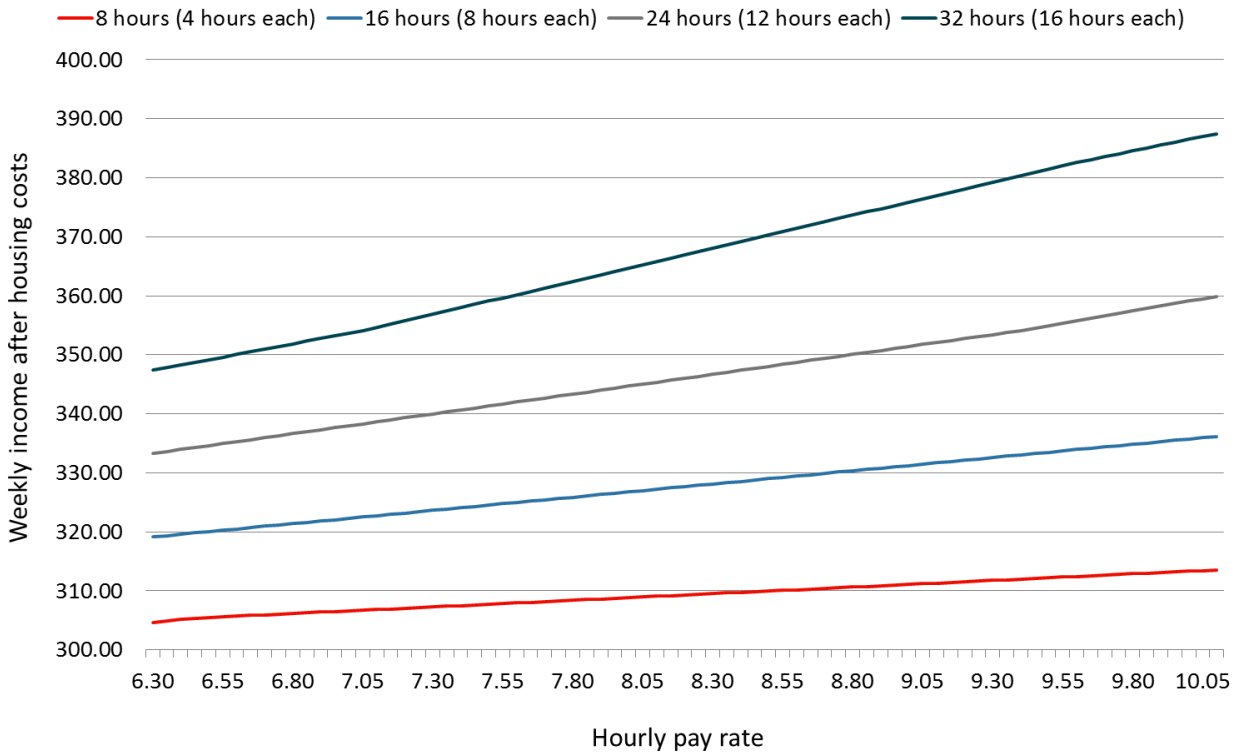
As in the previous case, the lowest work intensity displayed leads to a flat income as the hourly pay rate increases from minimum wage levels. This is again because the income at 8 hours a week between two adults is not high enough in this range to exceed the level of JSA the couple receive. The same is the case at 16 hours until around £7.80 an hour, when it is exceeded. Income gains after this point do not have any tax or benefits withdrawn at this number of hours worked, as income is below key thresholds until around £10 an hour.

At 24 hours worked between the couple, nothing is withdrawn until £6.60 an hour, at which point CTS and Housing Benefit is withdrawn. This increases the family's METR to 85%. It does not exceed this in the income range presented, as the various income disregards for a family with children are quite generous.

Income progression at 32 hours a week is very slow as hourly wages increase for this family type. This is due to very high METRs, as the family is initially eligible for CTS, Housing Benefit and tax credits. This produces METRs of around 92%. This does not decline until after the end of the graph (at £9 an hour), when the family ceases to be eligible for Housing Benefit.

Renting couple with children net income under Universal Credit

Rent: £86.88 per week, **Council tax:** £22.50 per week

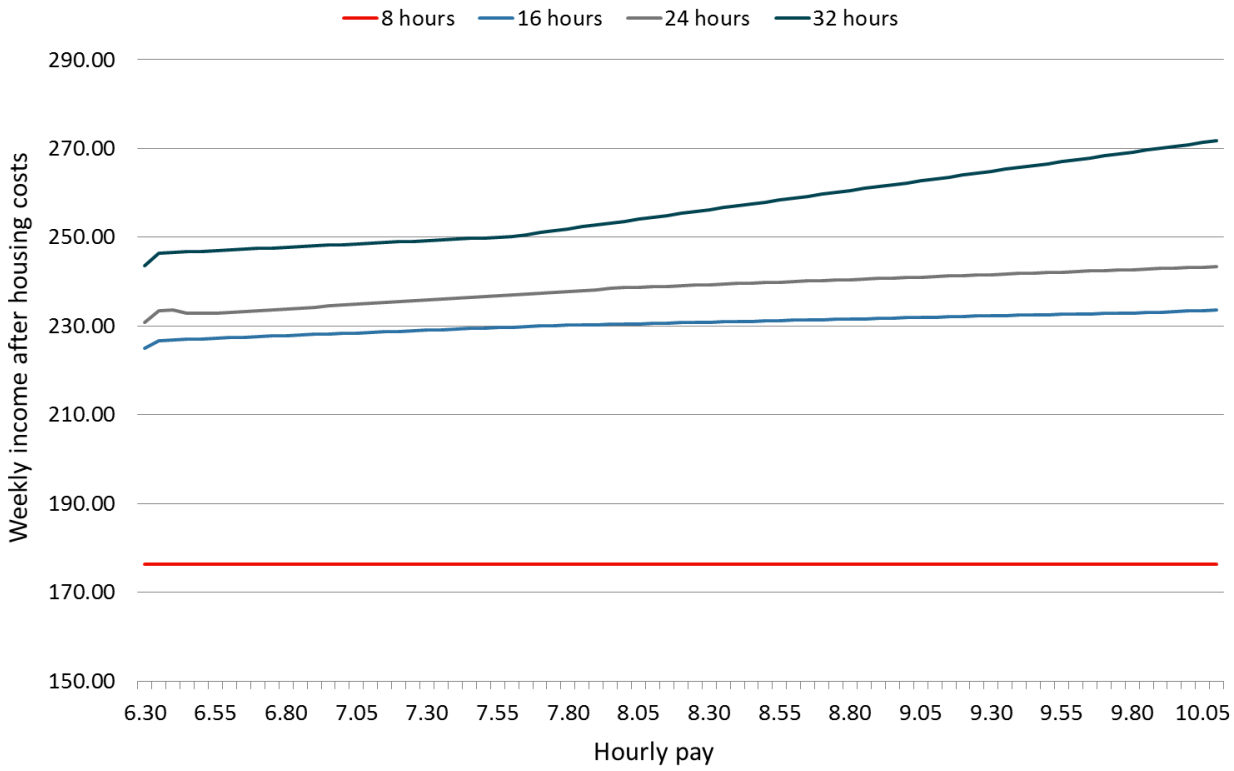


Source: NPI Household Tax and Benefit model. The tax and benefit values are for 2014-15.

There is much less variation in the case of UC, with much of the difference between the lines being a simple reflection of the number of hours worked. In the case of 8 hours worked by the couple, net income increases more quickly initially, with only CTS being withdrawn until £6.50 an hour. At this point, UC is withdrawn (giving a METR of 72%). For those working either 16 or 24 hours, the METR is 72% for the entire range presented in the graph. The increase in net income from higher hourly pay rates is slightly higher at 32 hours, as working 32 hours at £7.10 per hour means income is too high to be eligible for CTS. This reduces the METR to 65% for pay rates of £7.10 and above.

Lone parent renter net income under current system

Rent: £86.88 per week, **Council tax:** £22.50 per week



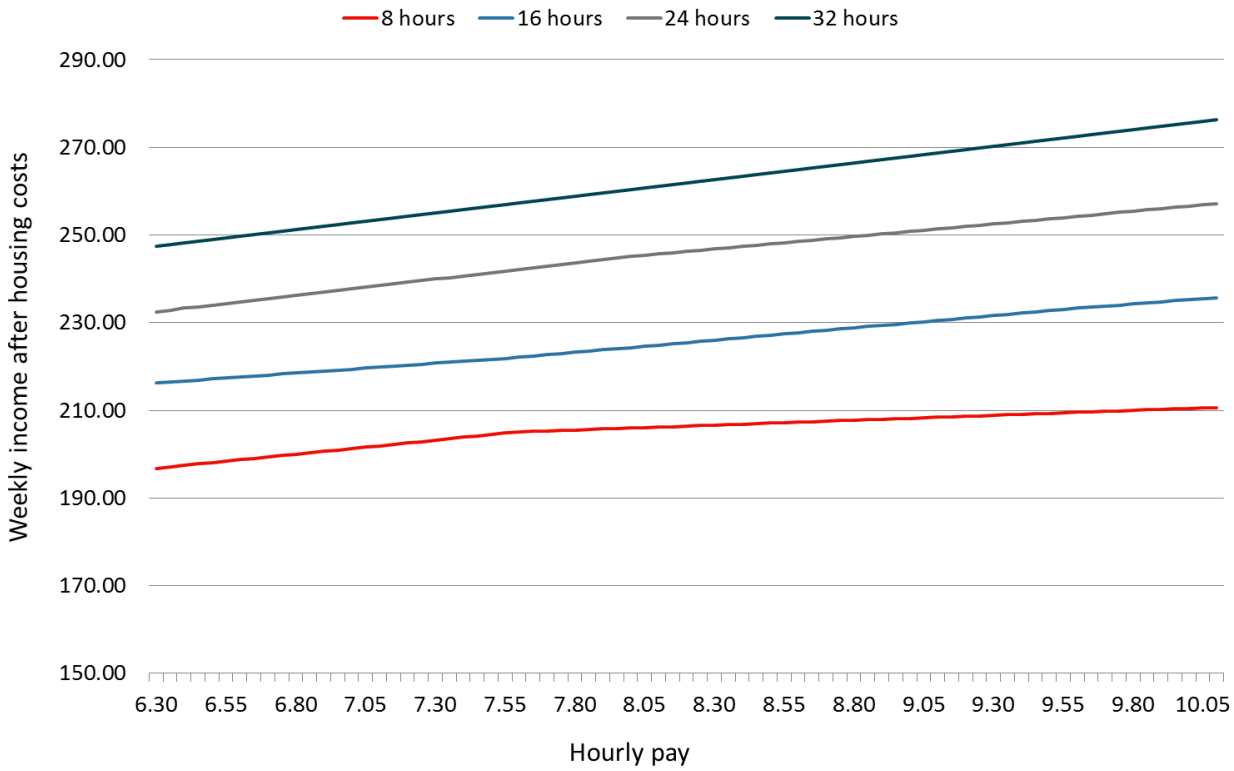
Source: NPI Household Tax and Benefit model. The tax and benefit values are for 2014-15.

Lone parents face high METRs in the same way as couples with children do. As in the other cases under the current benefits system, those working 8 hours a week experience no increase in income for increases in hourly pay as they remain below the JSA threshold at which there is a 100% deduction rate. At 16 hours worked, the METR starts high at 85%, and gets higher from £7.75 as child tax credit is withdrawn. This is why the net income line remains quite flat over this range.

At 24 hours worked, net incomes increases slightly more quickly for part of the range. This is because income is high enough to become ineligible for CTS, thus reducing the METR to 84%, though it increases again at £8.15 an hour due to earning enough to pay income tax. It is only at 32 hours at £7.65 an hour that a lone parent earns enough to cease claiming Housing Benefit. This leads to higher increases in income for an increase in hourly pay, though tax credits are still being withdrawn leaving a METR of 73%.

Lone parent renter net income under Universal Credit

Rent: £86.88 per week, **Council tax:** £22.50 per week



Source: NPI Household Tax and Benefit model. The tax and benefit values are for 2014-15.

A lone parent working for 8 hours a week earning under £7.60 an hour has large increases in net income for the higher hourly pay rates. For this range, only CTS is being withdrawn. This is in stark contrast to no increase in income for higher wage rates under the current system.

A lone parent working 16 hours a week at £7.60 an hour ceases to be eligible for CTS, and so only has UC being withdrawn. This means a METR of 65% and so a steeper income line than under the current system. It is only at 24 hours that a lone parent in this situation starts to pay National Insurance contributions (£6.40, just above the minimum wage - £6.31 an

hour at the time) and income tax (at £8 per hour). The income line at 32 hours is constant – the METR is 76% throughout, as throughout that range of hourly pay values NICs and income tax are being levied, and UC withdrawn.

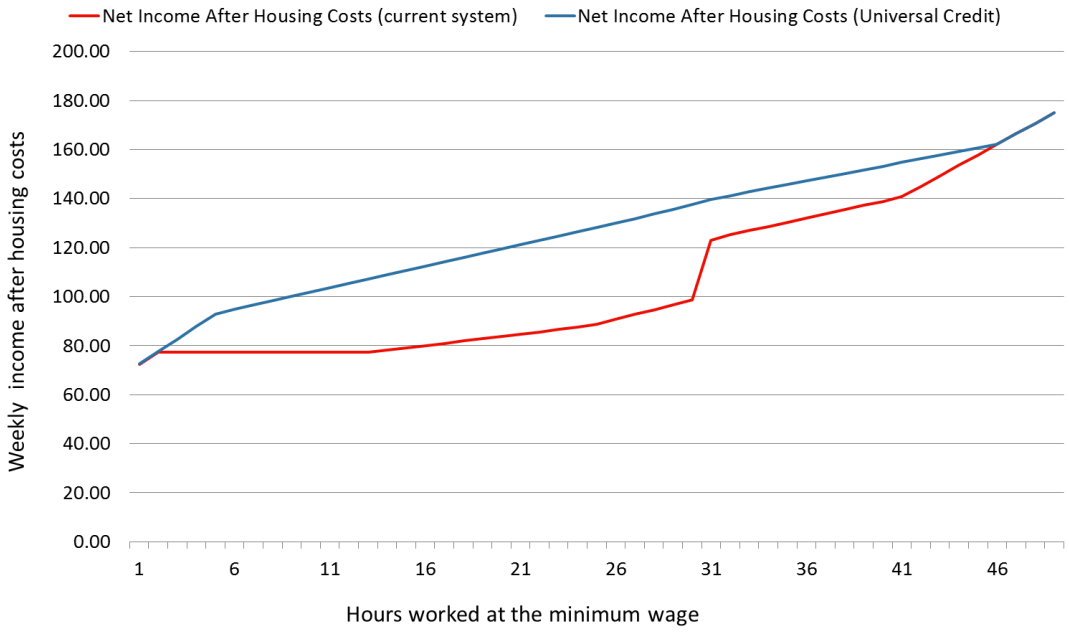
3. Household analysis - varying hours worked

In this section, we look at how family net income changes as the number of hours worked at the minimum wage is varied. A range of family types are looked at for both renters and those owning their homes with a mortgage.

Single adult renter

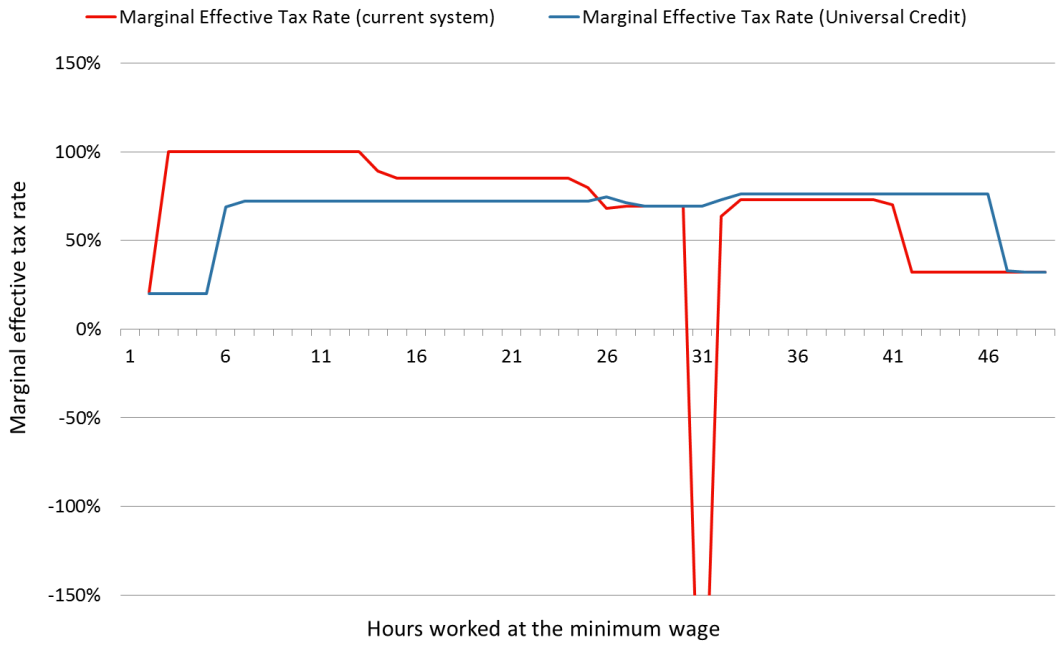
Rent: £73.22 per week, **Council tax:** £14.47 per week

Net income under the current system and Universal Credit



Source: NPI Household Tax and benefit model. The minimum wage is for 2013-14 (£6.31) and tax and benefit values are for 2014-15.

Marginal deduction rates under the current system and Universal Credit



Source: NPI Household Tax and benefit model. The minimum wage is for 2013-14 (£6.31) and tax and benefit values are for 2014-15.

Under the current system, single adult renters initially face marginal effective tax rates of 100% - that is, for every additional pound they earn, they lose a pound in jobseekers allowance. This leads to a flat rate of net income – their income is the same at 2 hours at the minimum wage as it is at 13 hours. After 13 hours, they earn too much to receive JSA. From 13 hours, the marginal deduction rate is 85%, with Housing Benefit and Council Tax Benefit being withdrawn. The large boost at 30 hours is due to becoming eligible for Working Tax Credits. By 42 hours at the minimum wage, a single adult renter with these characteristics is no longer eligible for any benefits, and the taper rate is simply income tax and National Insurance contributions.

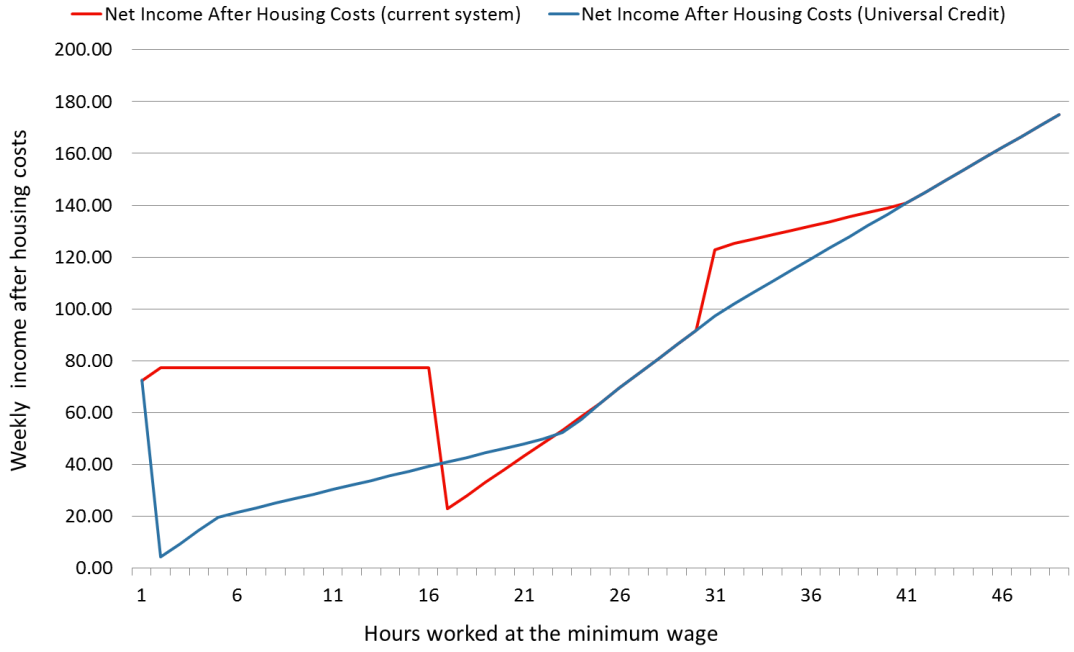
In contrast, the increase in net income under Universal Credit as the number of hours worked increases is smoother. While the first few hours of work under the current system see no financial benefit, net income increases sharply for these hours under UC as earnings are under the work allowance. Income then increases at a larger constant rate until 46 hours, when the individual ceases to be eligible.

Expressing this in terms of the marginal effective tax rate, it is originally 20%, with only CTS being withdrawn. It then increases to 72%, with slight changes as the individual becomes eligible for taxes and National Insurance and stops claiming CTS.

Single adult owner-occupier

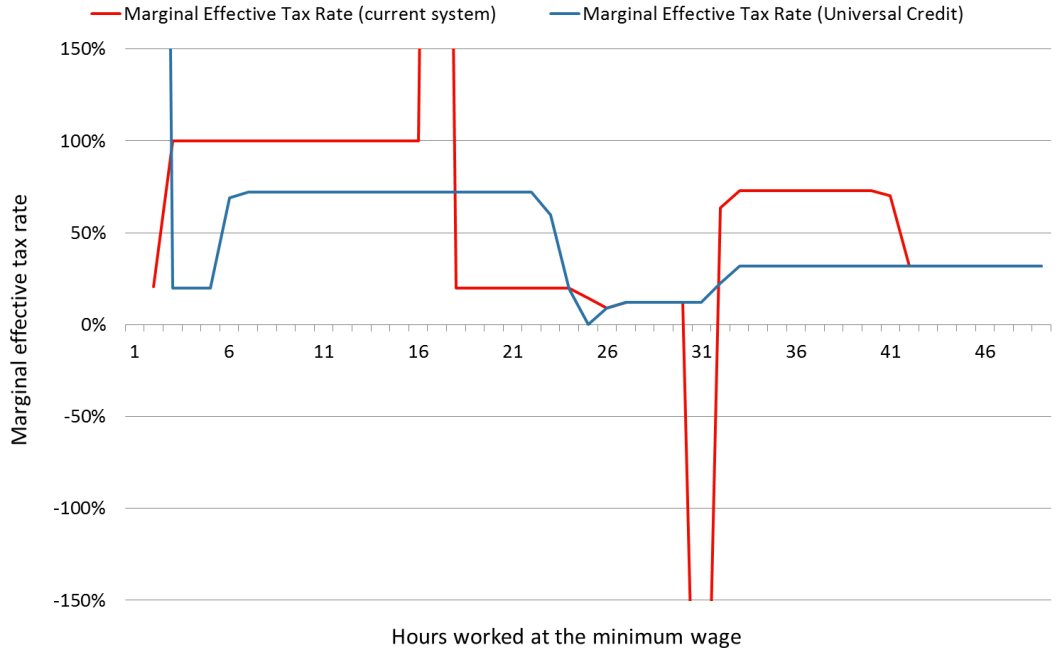
Mortgage repayments: £73.22, **Outstanding mortgage:** £104,888

Net income under the current system and Universal Credit



Source: NPI Household Tax and benefit model. The minimum wage is for 2013-14 (£6.31) and tax and benefit values are for 2014-15.

Marginal deduction rates under the current system and Universal Credit



Source: NPI Household Tax and benefit model. The minimum wage is for 2013-14 (£6.31) and tax and benefit values are for 2014-15.

This graph and all those that follow for owner-occupiers with mortgages represent something of a complication, as the housing support for this group has various time-limits and run-ons[10]. This model looks at something resembling a 'steady-state.'

Owner-occupiers can receive support for housing (Support for Mortgage Interest (SMI)) which counts as part of IS/JSA but is paid directly to the mortgage lender. When the individual ceases to be eligible for JSA at 16 hours of work, they lose all entitlement to mortgage support – hence the spike in METR (though SMI does run on for a few weeks). After this it must be paid from their roughly £100 of earnings, leaving a very low income after housing costs. An owner-occupier in this situation earns less for working 17 to 27 hours a week than at 16 hours. Income improves substantially after this as the individual becomes eligible for Working Tax Credits. This is around the point the income of an owner-occupier converges with a renter's AHC income, after being substantially lower.

Housing cost support for mortgage-holders under Universal Credit is only available to adults who are workless. This means the first hour of work leads to the loss of all mortgage support and a very low after housing costs income – in this case, £4.44 per week. This is a 94% reduction in AHC income compared to not working.

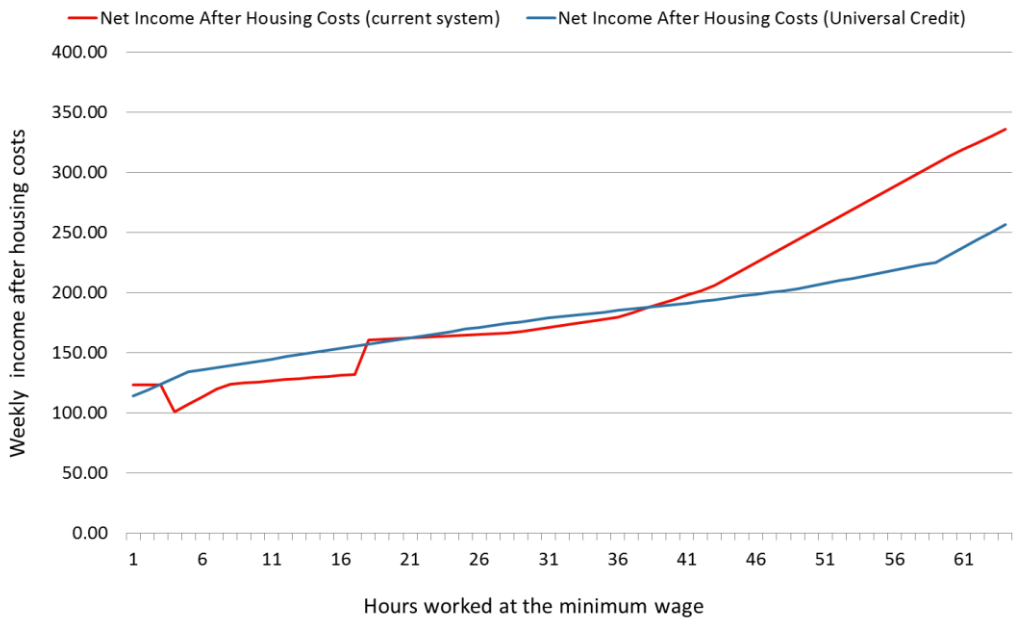
Work does not become financially worthwhile again until working 27 hours. The individual has stopped being eligible for UC by this point. UC is not worth claiming for certain individuals if they are owner-occupiers and wish to work.

[10] Support for Mortgage Interest has several time conditions attached to it. It can only be received after a waiting period of 13 weeks from first receiving the qualifying benefit. If the qualifying benefit is income-based Jobseekers Allowance, SMI can be received for a maximum of two years. If a recipient's financial situation improves sufficiently to cease to be eligible for the benefit, Mortgage Interest Run-On applies and payments are received for a further four weeks.

Renting couple with no children

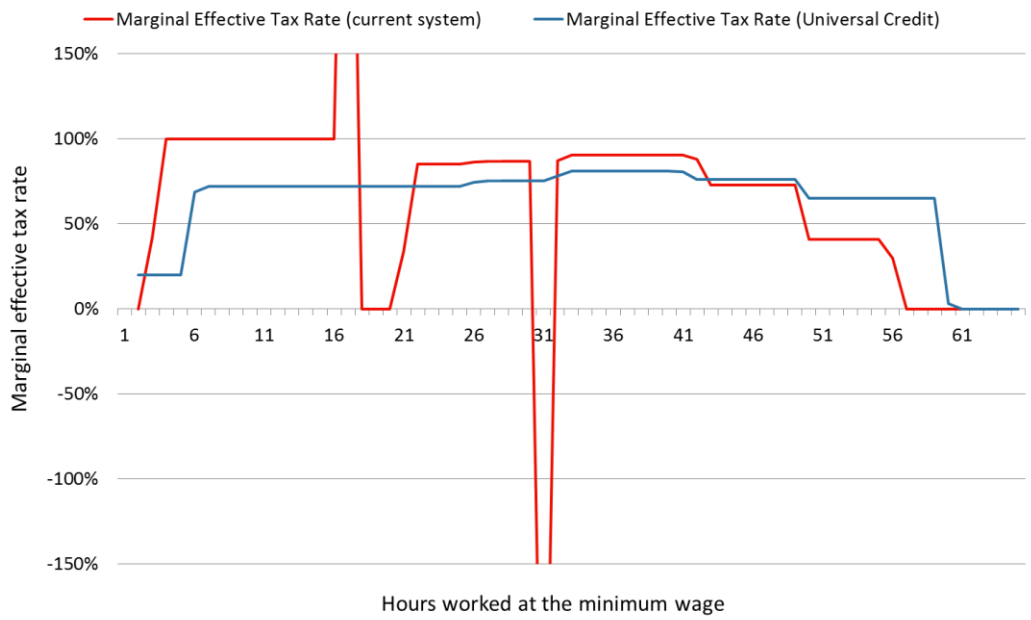
Rent: £81.38, **Council tax:** £19.29

Net income under the current system and Universal Credit



Source: NPI Household Tax and benefit model. The minimum wage is for 2013-14 (£6.31) and tax and benefit values are for 2014-15.

Marginal deduction rates under the current system and Universal Credit



Source: NPI Household Tax and benefit model. The minimum wage is for 2013-14 (£6.31) and tax and benefit values are for 2014-15.

As in previous cases, the progress of income (and the METR) is flatter under UC as more hours are worked for a couple with children. The converse of the lower average METRs under UC is that they are faced for longer than under the current system, so that income under the current system increases much more quickly when working more than 40 hours.

The current system has several features which contribute to unevenness. They face a flat income whilst JSA is withdrawn. After 16 hours they cease to be eligible for JSA, leading to a fall in AHC income as earnings do not yet exceed it, though the next few hours of work have no deductions as they are not yet earning enough to lose housing and Council Tax Benefit.

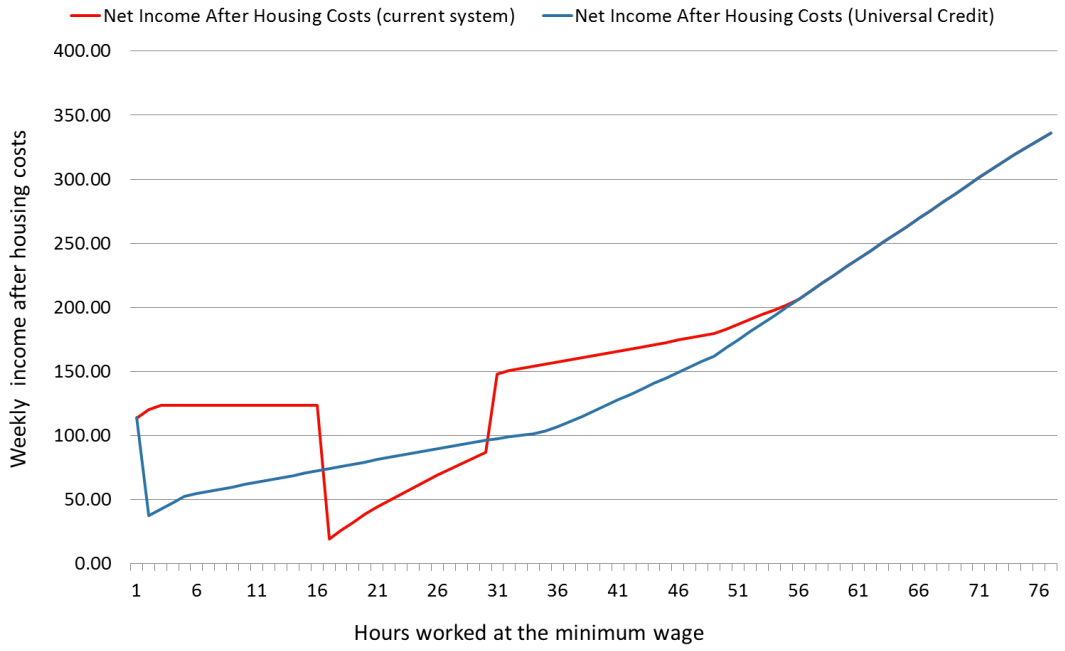
At 30 hours they qualify for Working Tax Credit, leading to a jump in income and then a net income which increases at a faster rate as they become ineligible for various benefits. As the second NMW earner starts, they face a zero deduction rate until the second adult reaches the threshold for National Insurance.

In contrast, under UC a renting couple without children have a fairly smooth net income path over hours of work at the minimum wage. It becomes steeper after ceasing to be eligible for UC as the taper falls to simply tax and National Insurance rates. The marginal deduction rate peaks at around 82%, with income tax and National Insurance contributions being paid and UC and CTS being withdrawn.

Owner-occupying couple with no children

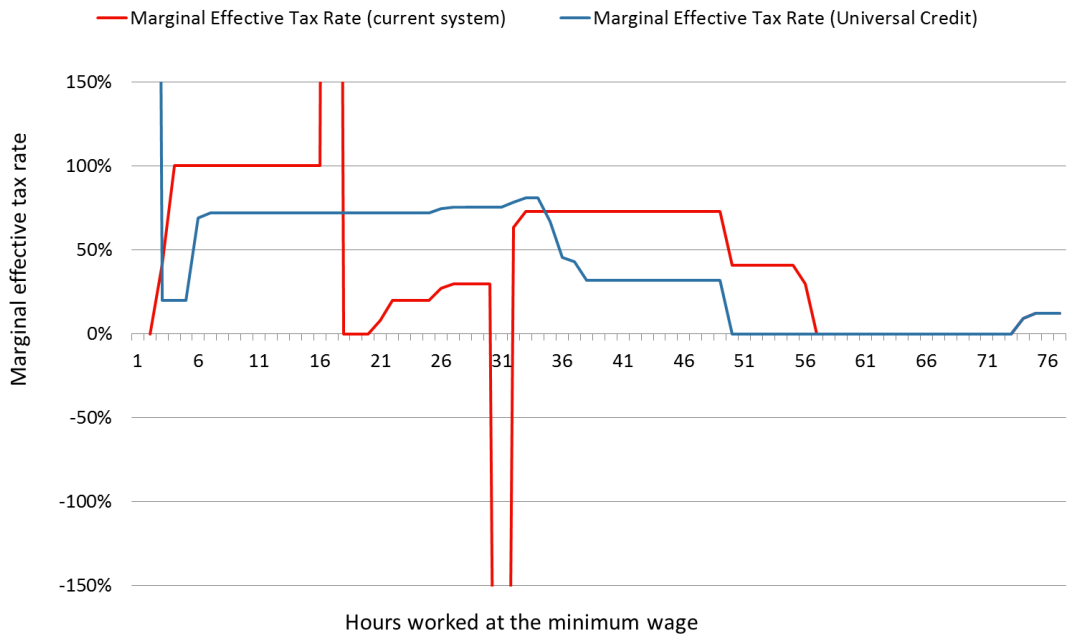
Mortgage repayment: £81.38, **Outstanding loan:** £116,577, **Council tax:** £19.29

Net income under the current system and Universal Credit



Source: NPI Household Tax and benefit model. The minimum wage is for 2013-14 (£6.31) and tax and benefit values are for 2014-15.

Marginal deduction rates under the current system and Universal Credit



Source: NPI Household Tax and benefit model. The minimum wage is for 2013-14 (£6.31) and tax and benefit values are for 2014-15.

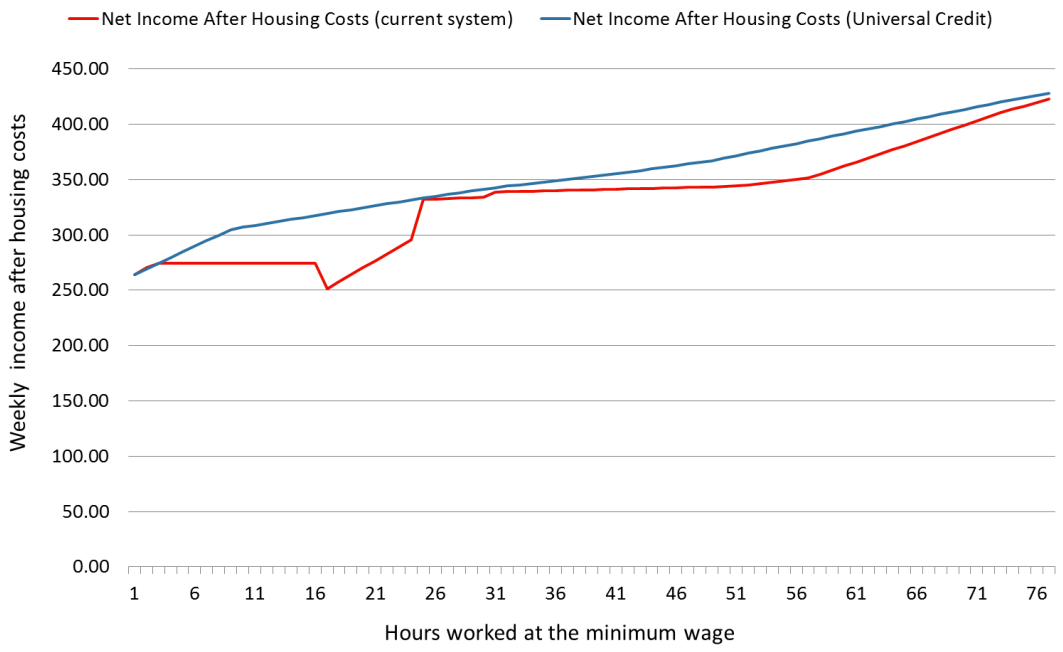
A couple without children who are owner-occupiers face largely the same net income curve as a single adult owner-occupier: a flat income as more hours are worked until a sharp decline created by the loss of the SMI element of JSA. Income does not recover until receiving Working Tax Credits, after which eventually the second earner starts working whilst facing generally low deduction rates. This is mirrored by a high deduction rate at 16 hours and at 30 hours a large dip as the couple becomes eligible for WTC.

Again under UC, owner-occupiers face a very large penalty for the first hour of work. Their income proceeds normally afterwards: the gradual UC taper. However, the income they had for not working is not exceeded until working at least 38 hours: hence there is a larger range of hours for which work is not financially worthwhile.

Renting couple with children

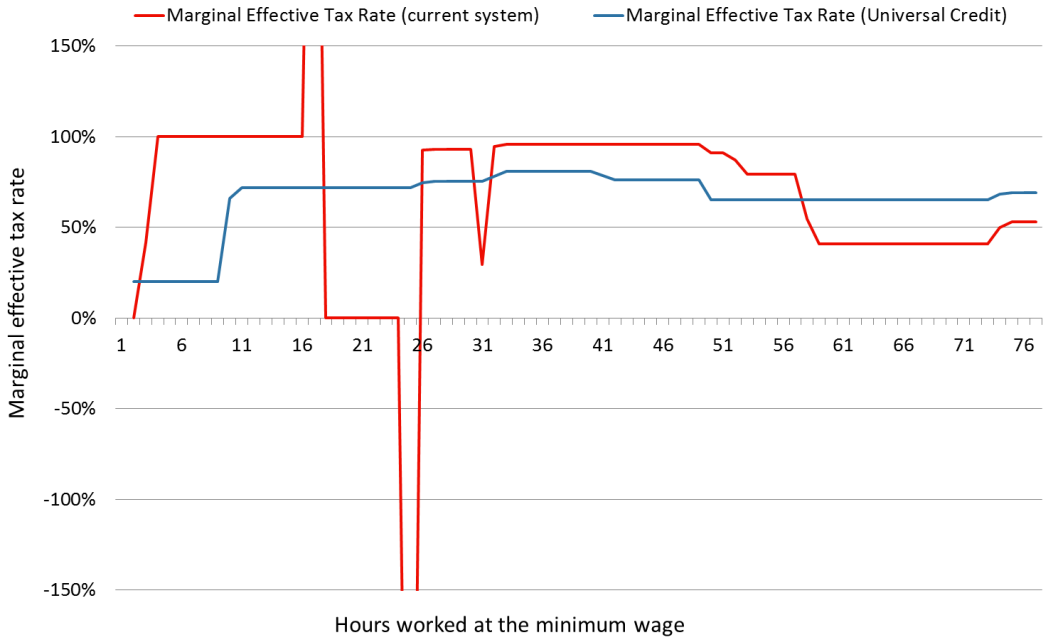
Rent: £86.88, **Council tax:** £22.50

Net income under the current system and Universal Credit



Source: NPI Household Tax and benefit model. The minimum wage is for 2013-14 (£6.31) and tax and benefit values are for 2014-15.

Marginal deduction rates under the current system and Universal Credit



Source: NPI Household Tax and benefit model. The minimum wage is for 2013-14 (£6.31) and tax and benefit values are for 2014-15.

A renting couple with children under the current system face METRs of 100% for the first 17 hours worked, as JSA is withdrawn one for one against earnings. The couple see a drop in income as they cease to be eligible for JSA at 16 hours. They are worse off working 16 to 20 hours a week than they are at 15. At 24 hours, they become eligible for Working Tax Credits and see a boost in their income to around £330 a week. Previously they would have been eligible for this at 16 hours, preventing the drop in income from losing JSA.

As a result of reasonably generous disregards for having children, this family faces high METRs of around 97% for a large number of hours. This means a reasonably flat net income graph until the second adult is working around 9 hours a week in addition to the 48 worked by the first earner. Around this point they cease to be eligible for most of the benefits they receive.

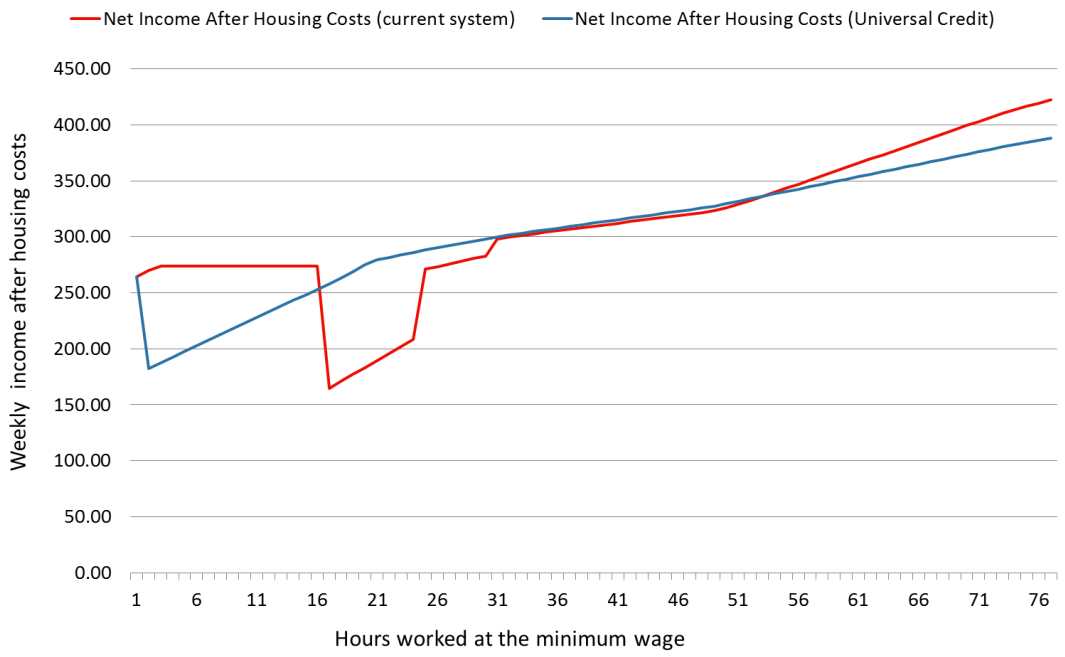
This family type benefits from Universal Credit, as their income is higher than under the current system across the entire range of hours presented. This is not the case, for example, with the couple without children who were better off under the current system after a certain number of hours. The difference is that the generous disregards for benefits when a family has children mean that the taper applies over a larger range of income.

Income starts at the same level when not working, but taper rates are much lower on average. The maximum taper rate under UC for this family is 80%, compared to the substantial stretch of 100% and 97% under the current system. The flipside to this is that they face taper rates above taxation levels for longer: it is harder for them to earn enough money to stop being eligible for benefits.

Owner-occupying couple with children

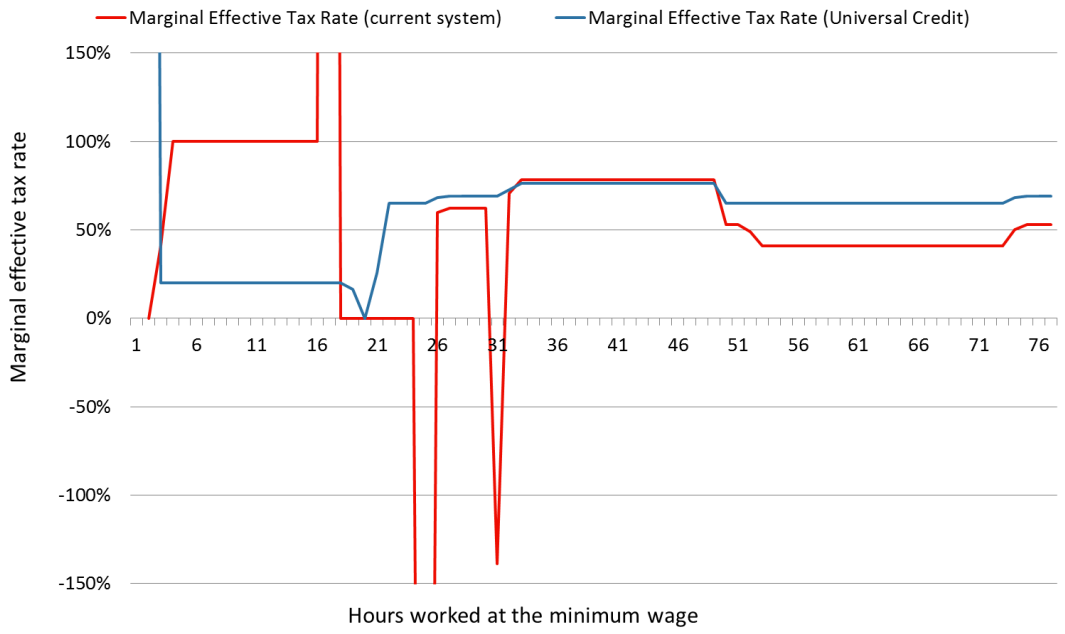
Mortgage repayment: £86.88, **Outstanding mortgage**: £ 124,456.20, **Council ta**x: £22.50

Net income under the current system and Universal Credit



Source: NPI Household Tax and benefit model. The minimum wage is for 2013-14 (£6.31) and tax and benefit values are for 2014-15.

Marginal deduction rates under the current system and Universal Credit



Source: NPI Household Tax and benefit model. The minimum wage is for 2013-14 (£6.31) and tax and benefit values are for 2014-15.

As with other owner-occupiers, there are several ‘cliff-edges’ in the METR for this couple with children as they work more hours at the minimum wage. Again, this revolves around losing eligibility for SMI once they work enough hours. This skews work incentives: doing ten hours a week more at the minimum wage if working 15 hours a week leads to no increase in income after housing costs. There is the usual boost from working 30 hours a week, while the decline in the METR around 48 hours is when the second adult begins working.

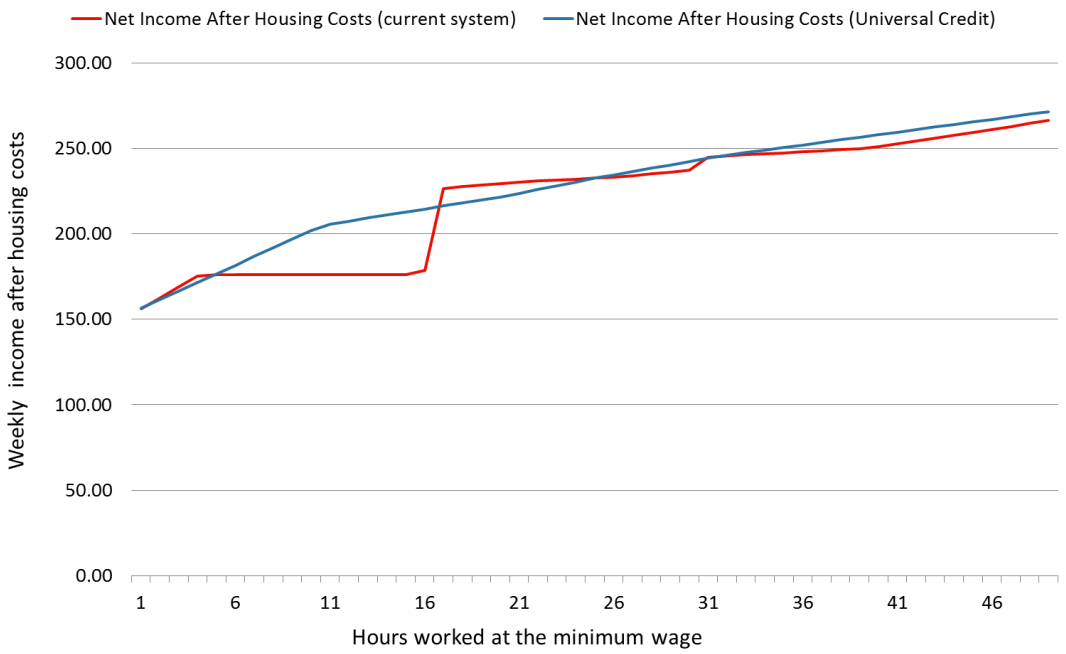
As UC ends entitlement to mortgage support if any paid work is carried out, the first hour of work sees a fall in weekly income of over £50. The family is not better off in work until they work 18 hours at the minimum wage.

As they have to pay their housing costs without a housing element, an owner-occupying couple with children ends up with a lower after housing costs (AHC) income than an equivalent renting family.

Renting lone parent

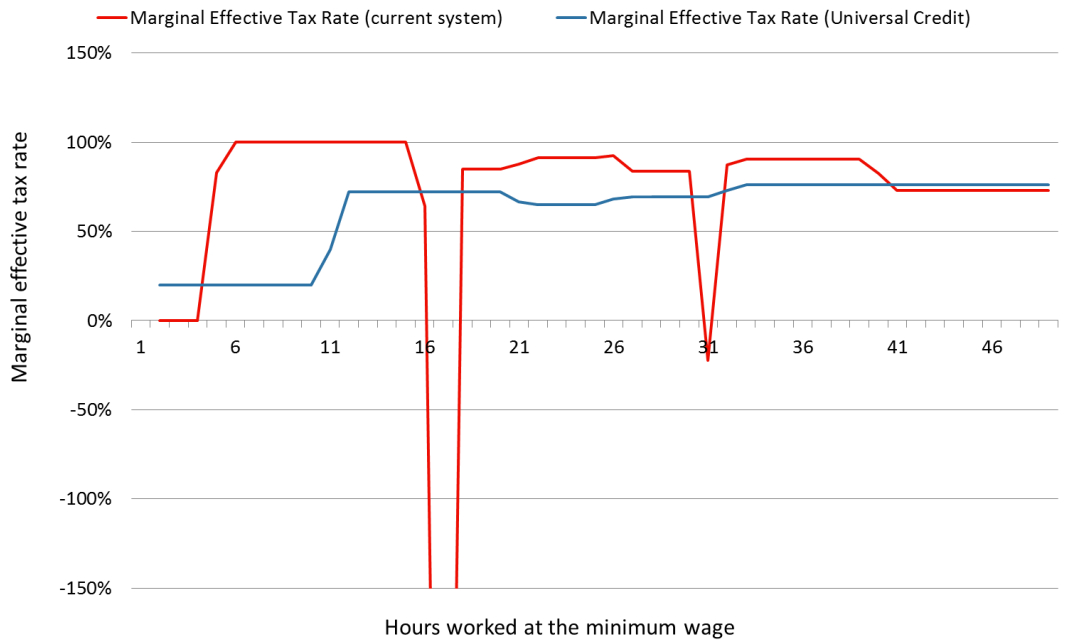
Rent: £81.38, **Council tax**: £16.38

Net income under the current system and Universal Credit



Source: NPI Household Tax and benefit model. The minimum wage is for 2013-14 (£6.31) and tax and benefit values are for 2014-15.

Marginal deduction rates under the current system and Universal Credit



Source: NPI Household Tax and benefit model. The minimum wage is for 2013-14 (£6.31) and tax and benefit values are for 2014-15.

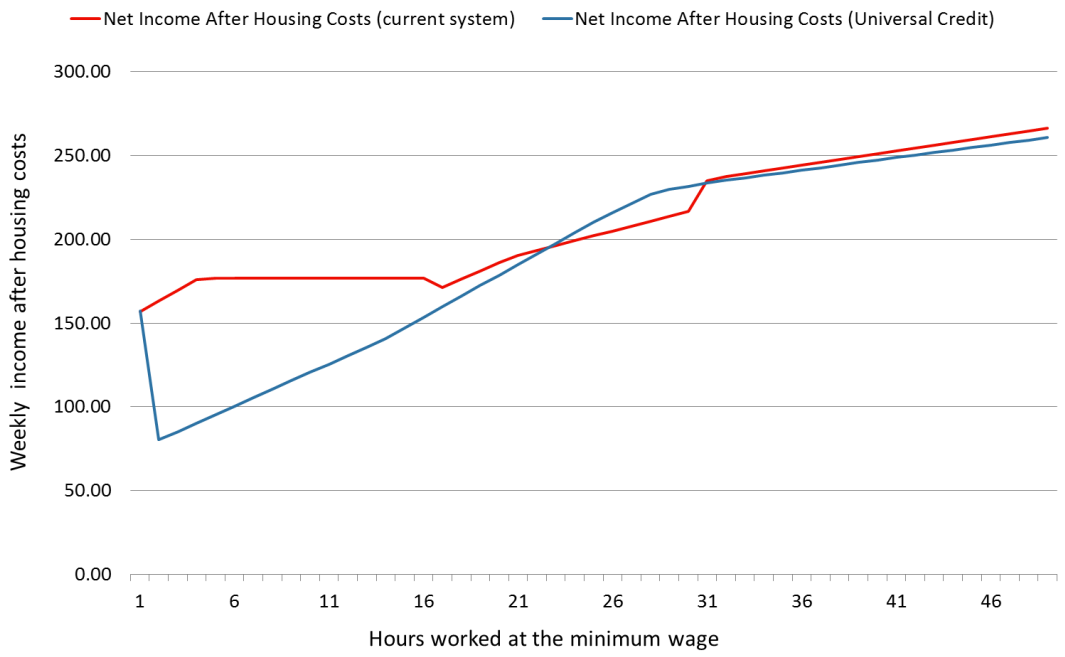
Under the current system, a renting lone parent sees only a gradual increase in net income as more hours are worked at the minimum wage: this is due to METRs at or close to 100% for long periods of time. This is due to numerous means-tested benefits being withdrawn. The exception is at 16 hours, when the individual becomes eligible for Working Tax Credit.

Net income increases by £23 a week between 0 and 15 hours a week, by £48 a week at 16 hours and then by £39 a week between 16 and 48 hours a week. Lone parents face a smoother increase in net income whilst working increasing numbers of hours at the minimum wage under Universal Credit. The net income AHC after 48 hours work is roughly the same as under the current system, but due to a steady increase in income rather than a flat period and a massive jump when eligible for tax credits.

Owner-occupying lone parent

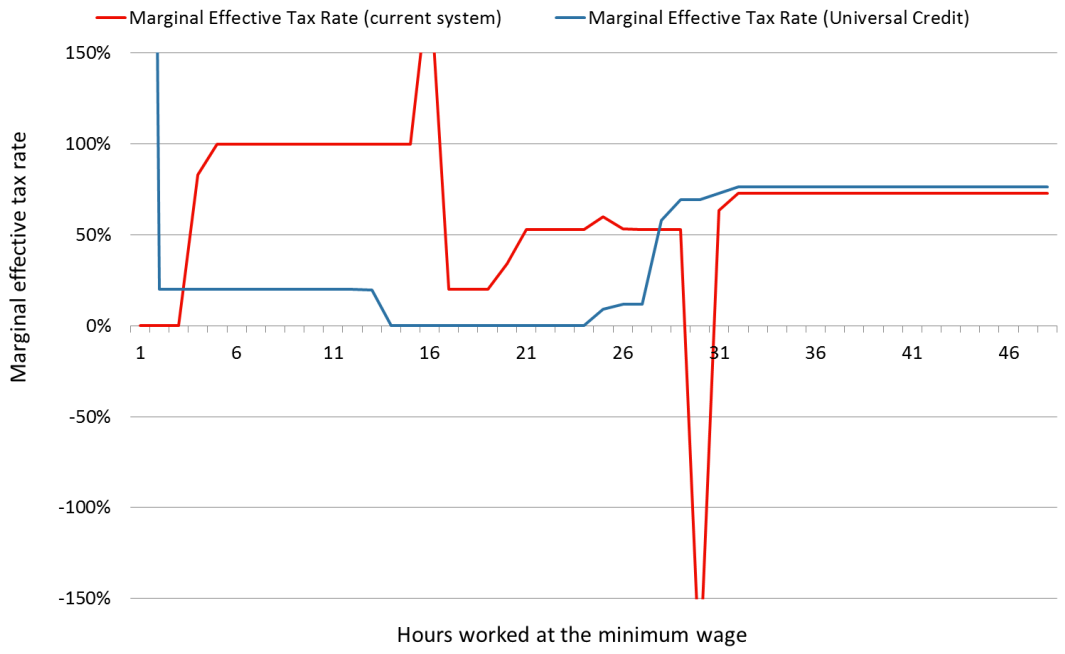
Mortgage repayment: £86.88, **Outstanding mortgage:** £124,456.20, **Council tax:** £22.50

Net income under the current system and Universal Credit



Source: NPI Household Tax and benefit model. The minimum wage is for 2013-14 (£6.31) and tax and benefit values are for 2014-15.

Marginal deduction rates under the current system and Universal Credit



Source: NPI Household Tax and benefit model. The minimum wage is for 2013-14 (£6.31) and tax and benefit values are for 2014-15.

Like with other owner-occupiers with mortgages, a lone parent in this situation faces very steep METRs whenever they reach the number of hours worked that means they lose entitlement to housing support. This is one hour for Universal Credit and 16 for the current system. Under the current system, the lone parent loses £79.81 in Support for Mortgage Interest, but is largely compensated by simultaneously becoming eligible for Working Tax Credit. This is worth £75.58 at 16 hours of work. At 30 hours under the current system, they receive an additional boost through the 30 hours element.

A relatively high METR is faced beyond 48 hours per week worked, as in both cases the large amount of tax credits means their income is not high enough to stop being eligible for WTC/CTC.

4. Population analysis

There has been a lot of attention on the rise of in-work benefits in the last few years; in particular Housing Benefit. Since 2009, in-work Housing Benefit claims have more than doubled from 450,000 to over a million. This has not been reflected to the same extent for other in-work benefits, however. Between 2009-10 and 2012-13, there has been a slight fall (0.5%) in the number of families receiving Working Tax Credit, although this may reflect a tightening of the eligibility criteria for couples with children. This section looks at the benefits received by the low paid in general and those on the minimum wage.

Approach

This analysis draws from the Family Resources Survey (FRS) for 2010-11 and 2011-12. It is based on the adult level part of the survey, and excludes those who are self-employed. Those aged under-21 have also been excluded. As the uprating of the national minimum wage does not align neatly with the dates of the FRS, all those whose hourly earnings fall into the range of the minimum wage between 2010 and 2012 are counted as having earnings near the minimum wage. On this basis, there are on average 860,000 adults earning near the minimum wage in both 2010-11 and 2011-12. This is somewhat below the estimate from the Annual Survey of Hours and Earnings, which for the three years 2010, 2011, and 2012 records an average of 973,000 adults aged 21 or over.

Figures are also presented for the low paid more generally; counted as those below the Living Wage for a given year.

Benefit receipt for low paid and minimum wage workers

Low income benefits and tax credits

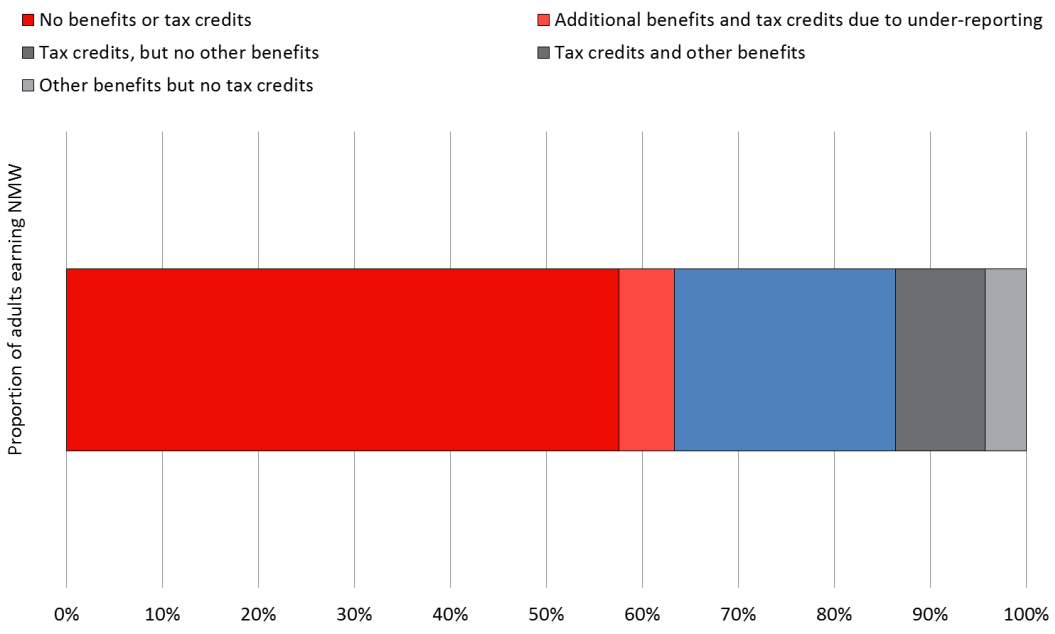
Around 37% of adults earning near the minimum wage are in families receiving either tax credits, low income benefits, or both according to FRS. On the basis of known underreporting in this survey compared to administrative data, we estimate another 6% are likely to be in receipt of benefits or tax credits. Figure A indicates that 23% of adults earning near the minimum wage are receiving tax credits but no other benefits, 9% tax credits and other low income benefits, and 4% benefits but not tax credits.

Why are only a minority of minimum wage earners receiving benefits and/or tax credits? There are multiple potential reasons: for example, adults aged 24 and under are not eligible

for WTC unless they are disabled or have children. Another reason is that individual adults earn the minimum wage, but benefits and tax credits depend on family income, so a minimum wage earner may have a partner who earns substantially more, thus making them ineligible for means-tested support. Additionally, working a large number of hours at the minimum wage can raise income above the thresholds for receiving benefits or tax credits.

These figures are very similar for the low paid in general. For this group, 65% do not receive tax credits or benefits; 23% receive only tax credits; 6% receive tax credits and benefits; and 7% receive only benefits.

Figure A

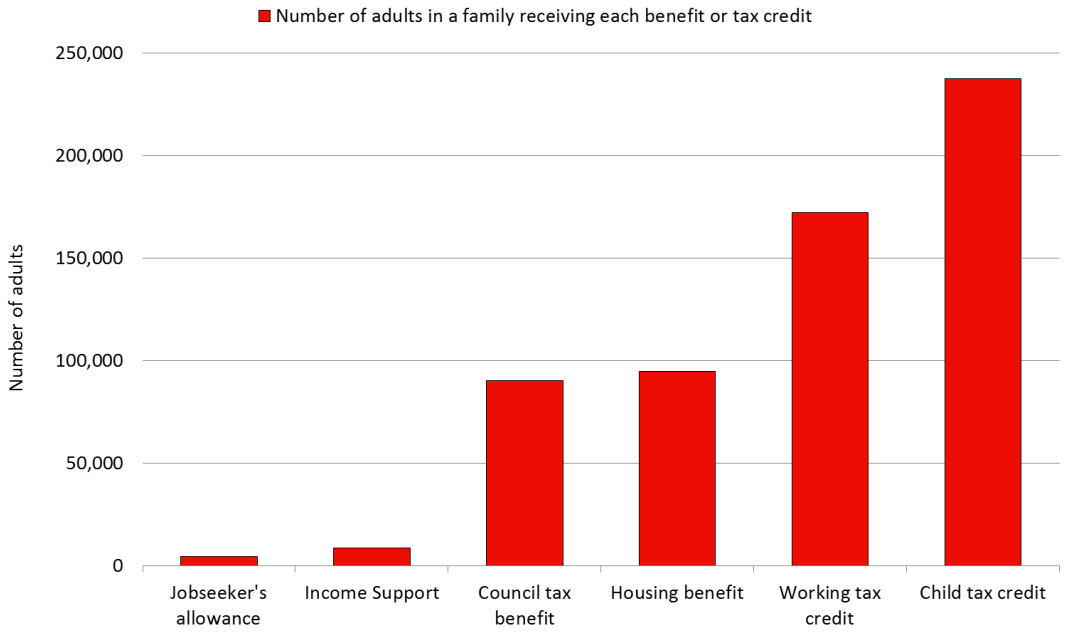


Source: Family Resources Survey, 2010-11 to 2011-12.

Figure B shows the breakdown of benefits and tax credits received in more detail for adults earning near the minimum wage. Note that adults who are in families receiving multiple benefits are counted under each benefit they receive in this chart. The most commonly received state support for those on benefits are tax credits, with more adults in families receiving child tax credits than Working Tax Credits. The next highest is Housing Benefit, with around 95,000 adults receiving it, with almost as many adults receiving Council Tax Benefit. 73,000 of the adults in these two categories are receiving both. The rank order of the most commonly received state support is the same for the low paid overall.

Fewer than 14,000 adults earning near the minimum wage receive JSA or IS. These benefits can only be claimed by those in work if they are working fewer than 16 hours a week and earning less than the amount of benefit, due to the 100% deduction rate.

Figure B

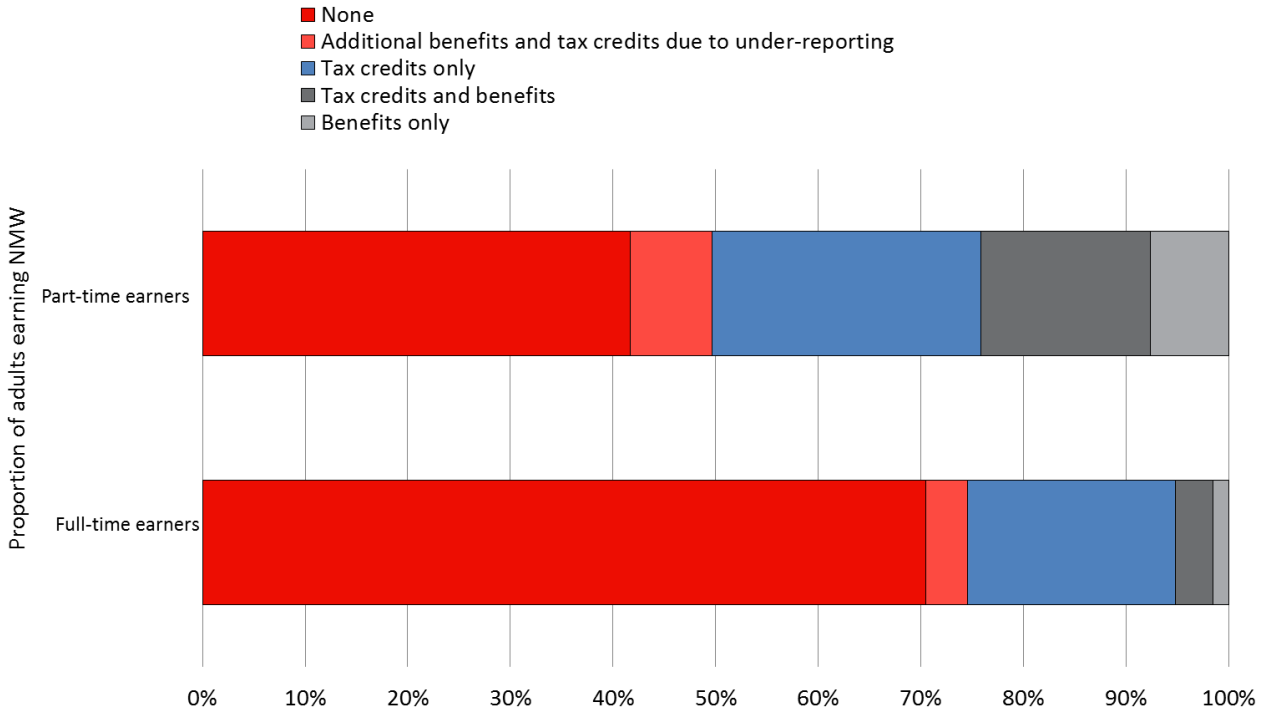


Source: Family Resources Survey, 2010-11 to 2011-12.

Full-time and part-time splits

Figure C shows the proportion of full- and part-time earners (part-time are those working fewer than 30 hours) near the minimum wage by tax credit and benefit receipt. Between 42% and 50% of part-time earners receive no benefits or tax credits. The lower figure takes into account underreporting as above. Around 50% of part-time earners receive benefits or tax credits or both, compared to 25% of full-time earners. Full-time earners are also more likely to be receiving only tax credits if they are receiving anything: 80% of those receiving state support compared to 52% for part-timers.

Figure C



Source: Family Resources Survey, 2010-11 to 2011-12.

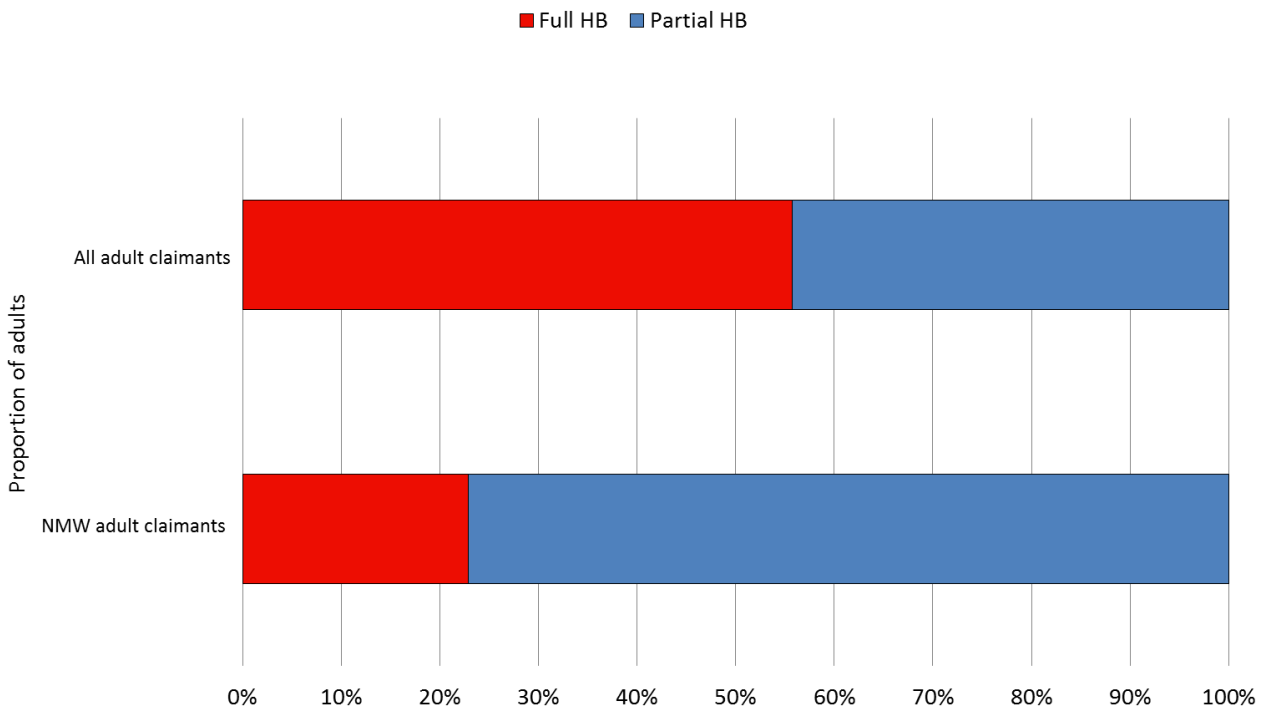
Housing Benefit and support for mortgage interest

This section focuses on the benefits that help cover housing costs. Figure B indicates that Housing Benefit is the most commonly claimed benefit for those earning near the minimum wage (other than tax credits). It also has a high deduction rate and has been the focus of a significant amount of attention under the Government's welfare changes.

As mentioned above, around 95,000 adults paid near the minimum wage are in a family receiving Housing Benefit - 11%. Around 22,000 (23%) of these adults are receiving full Housing Benefit, that is, their Housing Benefit covers the entirety of their rent. The remainder on partial Housing Benefit will be 'on the taper' – for each additional pound of net income, they will lose 65 pence of Housing Benefit. Those on full Housing Benefit may or may not be on the taper, depending on where their income is in proximity to their applicable amount and disregard. Figure D compares adults earning near the minimum wage in families receiving Housing Benefit to all adults in families receiving Housing Benefit. Given that the second category includes all of those receiving Housing Benefit who are out of

work, it is not surprising that a higher proportion of adults earning near the minimum wage are on partial Housing Benefit as their incomes are likely to be higher.

Figure D



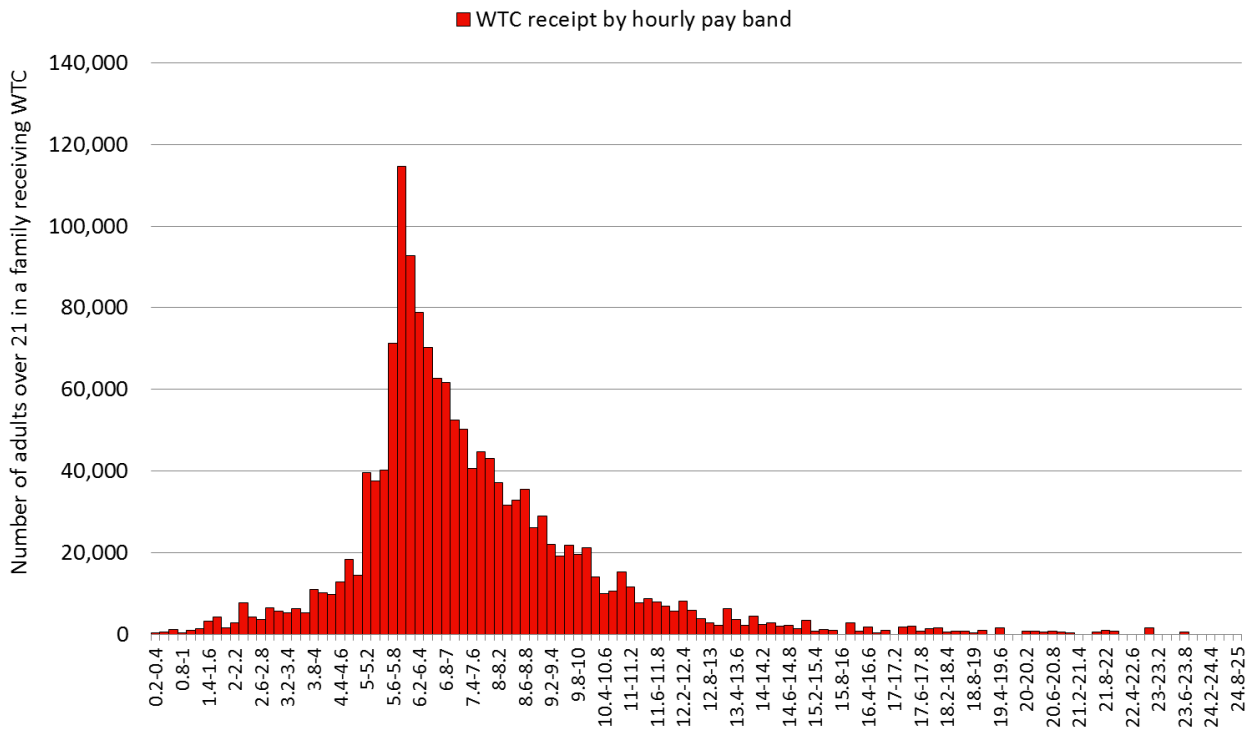
Source: Family Resources Survey, 2010-11 to 2011-12.

Renters in general tend to have lower household incomes than owner-occupiers. 61% of adults aged over 21 in renting families are in the bottom 40% of the household income distribution, compared to 26% of owner-occupiers. For adults earning near the minimum wage, 68% of those in renting families are in the bottom two-fifths of the income distribution, compared to 32% of owner-occupiers. Despite this, the previous section noted that for owner-occupiers with an outstanding mortgage, the benefits system can have poor work incentives and leave claimants with low after housing costs incomes.

In February 2014, there were around 37,000 claimants of JSA and IS receiving support for mortgage interest. This represents a steep decline: in February 2011, the figure was just over 100,000. This fall may represent the declines in the number of JSA and IS claimants. The small numbers mean it is not possible to analyse this group by earnings.

Benefit receipt by earnings distribution

Figure E



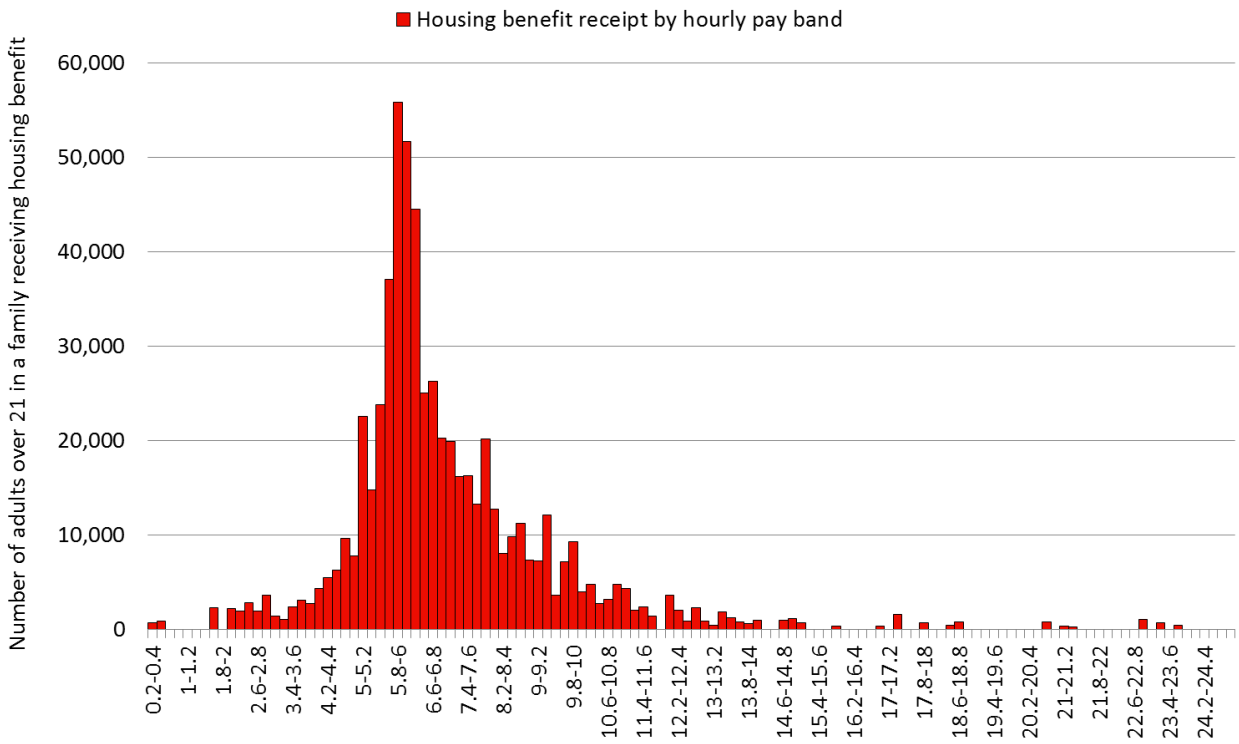
Source: Family Resources Survey, 2010-11 to 2011-12.

Figure E indicates the number of adults in a family receiving Working Tax Credits by 20 pence bands of hourly earnings, up to £25 an hour. The highest two points in this chart are approximately equivalent to the minimum wage band used in this analysis. The number of adults in a family receiving Working Tax Credit tails off quickly, with the number falling from almost 120,000 to around 40,000 at the living wage hourly pay rate. In this analysis, those earning near the minimum wage make up 2% of employees aged over 21 but 8% of those receiving Working Tax Credits. Working Tax Credit receipt is associated with low hourly pay rates.

Figure F shows a similar distribution, but for Housing Benefit. Despite lower overall numbers, the shape of the distribution is similar, with the range comprising the minimum wage band containing the highest number of adults in families receiving Housing Benefit.

As well as those earning the minimum wage making up the largest single share of those claiming Housing Benefit and Working Tax Credits by pay band, they also have the highest 'risk.' In other words, the proportion of those receiving HB and WTC within any given pay band is the highest within the minimum wage pay bands.

Figure F



Source: Family Resources Survey, 2010-11 to 2011-12.

Implications for deduction rates

There are a range of possible marginal deduction rates that those earning near the minimum wage can face, depending on the level of earnings and combination of benefits and tax credits received. Due to the numbers of adults earning near the minimum wage that are receiving means-tested benefits, the average marginal deduction rates for this group are likely to be relatively high compared to other earners. This should not be overstated, however. As Figure A indicates, 63% of adults earning near the minimum wage are in a family that does not receive benefits or tax credits. This means that their marginal effective tax rate will be between 0 and around 32%, depending on whether they earn enough to pay income tax and National Insurance contributions (excluding student loan repayments).

For the 23% receiving tax credits only, marginal deduction rates will have an upper limit of around 73%.For those receiving Working Tax Credits, the deduction rate is likely to be greater than zero given the requirement to work a minimum number of hours to be eligible for the benefit. The remainder who receive means-tested benefits and tax credits can have deduction rates up to 100%, for those receiving JSA or IS, or around 97% for those

receiving a combination of Housing Benefit, tax credits, council tax support and paying income tax and National Insurance contributions.

5. The employer's perspective

Approach

The evidence in this section was gathered through case studies and telephone interviews with a sample of low-paying sector employers by IDS specifically for the purposes of this research. Target organisations for the telephone interviews and in-depth case studies were identified by IDS, based on existing contacts and the sample aimed to reflect mainly smaller organisations in a variety of low-paying sectors (retail, hotels and hospitality, leisure, care homes, and childcare) employing staff either on or close to the minimum wage.

Topic guides were drawn up for the case studies and telephone interviews jointly by IDS and the LPC, provided at Appendix 2. The initial telephone interviews focused on identifying organisations suitable to feature as a case study, and gathering further evidence on one or two particular areas of interest based on their previous responses and perceived knowledge and experience of the tax and benefits system.

IDS contacted 113 organisations to ask whether they would agree to take part in the research. In total 31 agreed to take part and 12 organisations were identified as suitable for a case study following the initial telephone interviews. Five of these were identified as suitable for in-depth case studies. Headline results from the telephone interviews are presented below but we focus mainly on the more detailed information provided by the case study interviews

Sample

Responses to the telephone interviews cover all of the main low-paying sectors and a range of organisation sizes from 23 to 91,000 staff. Many of the largest employers are in the wholesale and retail sector, while smaller employers are mainly from the housing and social care and childcare sectors.

The case study organisations include three organisations in the care home sector, one private childcare company, and a small theatrical production organisation. All case study participants provided information on the basis of anonymity. A short profile of each case study is set out below.

- Case study 1 operates care homes, a nursing home and sheltered accommodation for older people. It employs 250 staff in total across two sites in the West Midlands and three sites in the East of England. The workforce is

predominantly female and the majority (65%) work full-time. Around a third of staff are paid the minimum wage.

- Case study 2 is a small care home provider employing a total of 66 staff across two care homes in the West Midlands. The overwhelming majority of employees are female and a quarter work part-time. The minimum wage is paid to 9% of staff.
- Case study 3 is a producing theatre made up of the theatre and a theatrical production group in Yorkshire. It employs around 280 staff, of which just 73 are permanent salaried staff. The minimum wage is paid to three-quarters of the workforce.
- Case study 4 is a multi-site private day care nursery employing 99 staff in total across five sites in central London. The vast majority of staff are female and overall 6% of staff are paid the NMW
- Case study 5 is a small care home for the elderly in outer London. It employs 23 permanent staff and a small number of bank staff. The workforce is evenly split between male and female employees and just over half of the workforce work part-time. The minimum wage is paid to 15% of staff.

Pay setting

Employers were asked about the factors that influence pay setting at their organisation. The most commonly stated factors influencing pay setting among the sample are the NMW (28), competitors' pay rates (23), affordability (22) and inflation. Just one respondent said that changes in the tax system have an influence and none reported changes in the benefits system having an influence

Table 1 Factors influencing pay setting

Factor	Number (proportion) of organisations
NMW	28 (90%)
Competitors' rates	23 (74%)
RPI/CPI	22 (71%)
Affordability	22 (71%)
Recruitment and retention	15 (48%)
Changes in the tax system	1 (3%)
Changes to in-work benefits	0 (0%)
Sample: 31	

In respect of the influence the minimum wage has on pay setting, the case studies gathered more information. The small care home (case study 5) reported that although it does not pay the minimum wage it is a key factor when considering the pay rise for the year, along with affordability. The manager has also noticed a squeezing of the gap between their pay rates and the minimum wage and said: “Although we are above the NMW, historically the gap was much wider”. This is due to larger increases in the minimum wage than in pay rates at the home, though in recent years, with lower rises in the minimum wage, this has been less of an issue.

The day care nursery (case study 4) also noted an impact on differentials over the last few years and the manager reported that a gap of around £1,000 a year between each point on the scale is now around half this level. The steps now represent around £5 to £10 extra a month in take-home pay.

The large care and housing provider (case study 1) reported that the minimum wage has an influence on setting pay rates, alongside other factors including inflation, affordability, recruitment and retention concerns and competitors’ pay rates. A small proportion of staff are paid the minimum wage, however the employer reports that 90 per of the workforce are directly affected by the minimum wage uplift because all pay rates need to rise by the same

amount in order to maintain differentials. This year pay for all staff will rise by 3 per cent from 1 October 2014, in line with the uplift in the adult minimum wage.

Interaction between pay and in-work benefits

Employers were asked if they had received any feedback from staff needing to work a particular number of hours to be eligible for in-work benefits; a pay rise resulting in a reduction in Tax Credits or other in-work benefits; not wanting to receive a bonus due to the impact on in-work benefits; or any other unintended consequences of changes in pay and hours.

In total nine employers reported that their staff had asked to work a specific number of hours in order to receive in-work benefits; 11 said they had received staff feedback relating to a pay rise reducing an employee's in-work benefits; and seven reported staff have asked not to receive bonuses due to the knock-on effect on their benefits.

Table 2 Staff feedback regarding interaction of pay and in-work benefits

Have you had staff feedback on:	Number (proportion) of organisations
Needing to work a particular number of hours	9 (29%)
A pay rise resulting in a reduction in in-work benefits	11 (35%)
Not wanting to receive a bonus due to impact on in-work benefits	7 (23%)
Other unintended consequences	4 (13%)
Sample: 31	

Staff needing to work particular hours

All five of the case studies reported that staff had requested to work a particular number of hours in order to qualify for Tax Credits and in all cases this was for 16 hours a week. This seems to be a major issue for the three care homes due to the impact on managing rotas, since they report that staff on 16-hour a week contracts are not willing to work any additional hours.

However, at the day care nursery (case study 4) while there are several staff who work 16-hours a week this working pattern does not cause the employer any concerns. The HR Manager at the theatre (case study 3) could only think of one member of staff requesting this pattern of work and it is not considered an issue.

The large care and housing provider (case study 1) reported that a number of staff have requested to work 16 hours a week in order to receive certain welfare benefits and are not willing to work additional extra shifts, a situation the employer finds frustrating (see below). The workforce population is heavily female dominated and many require their working patterns to fit around caring for children. There is also a notable minority aged over 65 who typically work between 12 and 16 hours a week to earn some extra income. Staff needing to work a set number of hours per week makes managing the shift rota more difficult given the shortage of care workers across the business. There is also an issue around training, since these workers cannot work full shifts and attend training. There are a number of essential training courses staff must go on, such as food handling, fire safety, manual handling, dignity and the mental care act, as well as other courses like understanding dementia.

The small care home provider (case study 2) used to employ quite a few people on 16-hour contracts at their request. Many of these employees ask for this pattern during the interview stage and make it clear from the outset they will not work extra hours to cover for holidays and other absences. The employer stated this not only caused a ‘headache’ when managing the rota, but also raised concerns around training. There are a number of training sessions that carers must complete to work safely in the care home. Since this is paid training it counts towards hours of work for the week, therefore staff have to be taken off a shift in order to undertake the training.

The manager of the small care home provider also felt that the situation was having an impact on the quality of care provided, since there was a lack of consistency in staffing for residents. Given concerns around the quality of care, managing the rota and training needs, the organisation has subsequently moved away from employing staff on contracts of less than 25 hours a week. While this resulted in an increase in employer National Insurance contributions amounting to around £11,000 a year, the employer feels the home is now easier to run and offers residents a better standard of care.

The small care home (case study 5) also voiced concerns about staff working 16-hours a week as a “bit of a pain”. The manager’s approach for managing the situation is to either employ more staff or use bank staff.

Staff not wanting a pay rise or bonus

In terms of the interaction between in-work benefits, pay rises and bonuses, only one of the case studies was able to provide any further insight. The manager at the small care home (case study 5) reported that most staff are usually pleased to receive extra money however last Christmas one employee asked not to receive the £150 Christmas bonus due to the impact on their Tax Credits which “mucks up their money”. The home withheld this payment at the request of the employee.

IDS also gathered three further examples from the initial telephone interviews. A large Yorkshire-based food manufacturer and retailer told us that it has experience of staff asking not to receive a pay rise or bonus due to the impact on their benefits and the company’s policy is to keep to the common practice and continue to award increases and additional payments. When probed for further information, the first line managers replied that it is not a common occurrence.

A large high-street retailer has also experienced staff not wanting to receive an incentive payment because of the impact on their state benefits. The company’s policy here is to allow staff to opt-out of the incentive scheme.

Similarly a large coffee house reported that they had had the same issues there, but the response from the business was the same, that they had not allowed people to opt out of bonus payments or pay rises on the basis of the impact on their tax credits.

Other unintended consequences

The large care and housing provider (case study 1) has experienced staff asking not to receive a taxable benefit due to the impact on their earnings and other income-based benefits. The organisation provides staff with medical insurance, under which they are entitled to £120 a year for dental treatments, £120 a year for optician costs, physiotherapy treatment, a consultation with a private medical consultant and a MRI scan. This benefit is valued at £150 and the tax due under benefit-in-kind rules is approximately £30 a year. Some of the organisation’s lower-paid staff have asked not to have the benefit so that the amount of tax they have to pay is reduced.

The employer research suggests that the tax and benefits system does have an impact on employees’ availability for work. Employers have reported staff wanting to work particular numbers of hours around the thresholds for tax credits. While the sample is small and can only be seen as indicative, most employee feedback came from female workers, suggesting the interaction between earnings, the tax and benefits system, and the minimum wage is

greater for women than men. This coincides with what we already know about the impact of the minimum wage – that more women are affected than men, since they are more frequently found in lower-paying parts of the economy (and often the five C's i.e. cashiering, cleaning, caring, catering and clerical work)

Appendix 1 – IDS research topic guides

Interview questions

Workforce

1. How many people does your organisation employ?
2. Can you provide a breakdown:
    a. By gender
    b. By age (e.g. under 18, 18-20, 21 and over and older workers, 50)[11]
    c. By employment status (e.g. full-time, part-time, zero hours)
    d. By contracted hours

Hours and contracts

1. Status of employees: permanent, temporary, self-employed contract, agency, zero hours?
2. Are you aware if any of your workers have other (second) jobs? If so, can you estimate what proportion?
3. What hours or patterns do employees typically work?
4. Have they seen a change in typical hours/contracted hours in recent years – if so, was this for existing staff or for new staff? Is the trend towards shorter or longer hours? If reduced hours for existing staff, how was this received by staff (probing for negative implications linked to in-work benefits eligibility)? If reduced hours for new staff, what advantages does this offer to the employer? Has it changed the type of staff applying for jobs?
5. Are there any patterns in part-time hours e.g. around the 16, 24 and 30-hours a week mark? If so, are these patterns employee or employer driven? If not, have they encountered staff specifically asking to work these particular hours?
6. Is the flexible working policy open to all or only those eligible via law? Have they noticed an increase in applications?

[11] Has the age profile of their staff changed in recent years – e.g. more younger or older workers? If so, how and why?

Pay rates

1. Do you pay the NMW? (e.g. £6.31 for those aged 21 and over, £5.03 for those 18-20, £3.72 for those aged 16-17, £2.68 for apprentices under 19 or in year 1 of level 2 or 3 apprenticeship)
2. What is the lowest/next lowest rate of pay for an adult permanent employee?
3. What proportion of the workforce are on these rates?
4. What groups of staff are in receipt of this rate? e.g. which jobs does this rate cover
5. Do you pay differing pay rates specifically linked to age? If so, at what age is the adult rate paid? If so, what are they? Specifically, do they use the 16-17 Year Old Rate or Youth Development Rate (18-20s)? If not, why not? Do the youth rates provide an incentive/encouragement to employ younger works? If not, why not?

Impact of the minimum wage

1. Did the most recent uprating of the NMW lead to a change in your pay rates, either to comply or to maintain a gap/pay lead?
2. If yes, how many staff/what proportion were affected by this change and by how much were pay rates raised (%)?

Setting pay rates/reaching decisions on pay

1. Do you have a separate settlement/increase for low-paid and higher paid staff? If so, why?
2. What are the key factors you consider when setting pay rates and increases? (open question, followed by a series of tick boxes: NMW, RPI/CPI, affordability, competitors' rates, R&R, tax changes etc.
3. When you think about pay rates for staff do you think about GROSS (before tax, NI and any other deductions) or NET (after) pay [take-home pay]?
4. Do employees have an influence on their pay rate? To what extent are employees about to 'negotiate' the pay rate? Do some groups/types of workers negotiate more than others?
5. Have you had feedback from staff on any of the following topics:
    a. needing to work a particular number of hours to receive tax credits
    b. the impact of a pay rise being negated by changes in tax credits/taxes etc.
    c. other **unintended consequences** of changes in pay and/or hours