

CHILDIND THE GAP

REPORT

REFORMING CHILDCARE
TO SUPPORT MOTHERS
INTO WORK

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February 2014 © IPPR 2014

Institute for Public Policy Research

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ACKNOWLEDGMENTS

This research has been generously supported by the Nuffield Foundation. The authors would like to thank the following people for their input and advice, both on this paper and the wider project: Teresa Williams (Nuffield Foundation), Anne McMunn (University College London), Jo Blanden (University of Surrey), Heather Joshi (Institute of Education), Edward Melhuish (Birkbeck), Kitty Stewart (LSE), Naomi Eisenstadt (University of Oxford), Susan Harkness (University of Bath), Birgitta Rabe (Institute for Social and Economic Research), Kathy Sylva (University of Oxford), Ellen Broom (Family and Childcare Trust), Liz Bayram (PACEY), Claire Schofield (NDNA), Emma Stewart (Women Like Us) and Vidhya Alakeson (Resolution Foundation).

Thanks also go to Ashwin Kumar (Liverpool Economics), who provided vital research support and guidance on the labour supply and fiscal modelling portion of the research, and to Alex Hurrell (Resolution Foundation) and James Browne (Institute for Fiscal Studies) who also offered comment on this aspect of the research.

Thanks finally go to IPPR colleagues for their comments and support, in particular Graeme Cooke, Nick Pearce, Imogen Parker and Kayte Lawton.

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The purpose of our work is to assist all those who want to create a society where every citizen lives a decent and fulfilled life, in reciprocal relationships with the people they care about. We believe that a society of this sort cannot be legislated for or guaranteed by the state. And it certainly won't be achieved by markets alone. It requires people to act together and take responsibility for themselves and each other.

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This paper was first published in February 2014. © 2014 The contents and opinions in this paper are the author(s) only.

ABOUT THE PROJECT

This report is part of the wider IPPR project 'Childcare: A strategic national priority?', which seeks to analyse the case for, and core components of, a more strategic approach to early years provision in the UK, and explore the impact of childcare on gender equality, maternal employment and child development. Further details about this project, including future publications, can be found at http://www.ippr.org/research-project/44/9892/childcare-a-strategic-national-priority.



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EXECUTIVE SUMMARY

Maternal employment rates are important. Families where parents work experience a significantly lower risk of child poverty. Mothers who are able to work, or return to work, reduce their 'motherhood pay penalty', the fall in earnings that is linked to the length of the break in economic activity following childbirth. In addition, maternal employment has been positively linked to child development, and to parents' health and wellbeing.

Beyond the benefit to individual families, higher levels of maternal employment also produce a significant return to the Treasury. Indeed, the reduction in benefit spending and rise in tax revenues that maternal employment produces could be reinvested as part of a package to invest in better quality childcare.

A range of factors influence family, and maternal, decisions about work. Individual preferences about whether to work or look after children, the availability of work, the potential for flexible working and the quality of childcare are just some of the important issues that parents consider. Overall, many mothers say that they do want to work and/or increase their working hours; but repeated parent surveys have found that one very significant barrier is the lack of affordable childcare, and/or the lack of flexibility in the work that is available.

Affordability and maternal employment: the international evidence

With the recent announcement of a £750 million annual package of government investment in affordability through tax-free childcare and universal credit, affordability is high on the current political agenda. By making childcare more affordable for parents, work pays more and mothers are better able to enter a job, and to work more hours; this and past UK governments have frequently cited support for more maternal employment as a central goal of early years policy. However, there are still concerns that the current proposals to extend tax-free childcare and support through universal credit may not actually decrease childcare costs, given the consistently high level of price inflation in the childcare market.

The international evidence shows that despite relatively high female employment rates, the UK has comparatively low maternal employment rates. National employment data from 2013 shows that the employment rate for working age women with dependent children was 67.5 per cent, compared to 76.2 per cent for those women without dependent children. Among OECD countries (using comparative data from 2009), the UK's maternal employment rate of just under 70 per cent is average – but this is considerably below top performers Denmark, Sweden and the Netherlands, all of which attain maternal employment rates of around 80 per cent. And the UK lags behind other OECD countries in particular categories: for example full-time workers, lone parents and low-skilled workers. This suggests that there is scope to increase maternal employment rates in line with other OECD countries.

Childcare and early years policy has been shown to be a key factor driving these differences. In recent years, a plethora of research has attempted to account for the wide disparity in female employment rates between different countries. Those studies that assess the impact of different areas of family and social policy on employment rates consistently find that the degree of public support for childcare is a significant determinant of maternal employment rates. Countries with greater enrolment rates in publicly funded or provided childcare also have higher maternal employment. Analysis of the international literature also suggests that childcare systems that support high levels of maternal employment provide 30 or more hours a week of subsidised childcare. This is a significant finding in considering future policy directions for the UK.

Other work has shown more mixed results. Many researchers have studied individual countries' specific policies for providing free or affordable childcare, isolating the impact of the cost of childcare net of other factors. In many of these, affordable care is clearly linked to an appreciable increase in maternal employment; but in others, the relationship may be weaker. While there are important methodological differences between these studies that make it difficult to generalise, it does seem to be the case that in countries where maternal employment is relatively low and childcare is relatively expensive, reducing the cost that parents pay can significantly increase the number of mothers in paid work.

The importance of childcare costs varies between different groups of mothers and across different systems of childcare provision. The key things affecting maternal employment levels appear to be a combination of family, childcare and job factors.

Family factors include:

- age of youngest child
- number of children
- relationship status
- partner's working pattern
- income level
- preferences.

For example, mothers are increasingly likely to work as the age of their youngest child rises. Many mothers also move from part-time to full-time work when their youngest child starts school. This shows that increasing the support for good quality affordable childcare for younger children is a vital step in increasing maternal employment and for reducing the gender wage gap.

Childcare factors include:

- the cost of childcare
- the availability of places
- the quantity and flexibility of provision.

For example, many parents cannot find childcare provision for the hours that they work. It is particularly difficult, and more expensive, to find childcare for parents who work outside the conventional 9am to 5pm weekday pattern. Since many jobs of this type are in low-paid sectors, mothers working 'atypical hours' are at a double disadvantage.

Job factors include:

- the nature of the labour market
- job supply
- the prevalence of part-time working
- skill level
- work flexibility
- interaction with the benefits system.

The international evidence suggests that as countries make childcare more available and affordable, the largest impact is on those mothers on the margins of employment. Internationally, the differences between countries' maternal employment rates are largely

driven by low employment among mothers with lower levels of educational attainment – there is less disparity in the employment rates of highly educated mothers. In some countries, like Sweden, mothers with fewer professional skills and qualifications are already working in large numbers. But in others, including the UK, they are much less likely to be participating in the labour market.

Based on an analysis of the international literature on maternal employment and childcare affordability, a number of lessons on effective strategies emerge, focusing on different groups of mothers.

- Making childcare more affordable can increase both the overall maternal employment rate and the hours that mothers work. The evidence suggests that affordable childcare can increase the maternal employment rate by between five and 10 percentage points. There is also evidence that affordability can increase the hours that mothers work. Given the comparative high levels of part-time working of UK mothers, this suggests that there is scope for mothers to work more hours.
- The evidence suggests that affordable childcare supports mothers with younger children (aged up to two) to enter or re-enter work, and mothers whose youngest child is between three and five to increase their hours.
- A childcare cost of around 10 per cent of net family income appears to support high levels of maternal employment (in the UK the figure is currently closer to 30 per cent for full-time dual earner couples and 20 per cent for 1.5 earner couples on median incomes). Once childcare costs are less than 10 per cent of net family income, there appears to be a less significant increase in the maternal employment rate.
- The biggest impact of affordable childcare on the maternal employment rate is on groups facing the largest employment barriers for example lower-skilled and lone parents.
- Affordable childcare will have a greater impact if provision is flexible, and can fit more
 closely around working hours even if these fall outside the regular ones, and if more
 flexible job opportunities are available to parents.

However, this is not simply a straightforward issue of affordability. A number of other factors contribute to parents' decisions about whether or not to take up childcare, including employment issues. These should also be taken into consideration when looking at the policy implications.

Living standards and public finances

New modelling in this paper suggests fiscal returns for increasing the maternal employment rate – both in the number of mothers working and the hours they work. Based on IPPR's tax-benefit model, we consider the impact of a range of scenarios (all of which raise the maternal employment rate in different ways) on households as well as public finances.

The evidence suggests several ways that supporting mothers into employment and encouraging a greater level of full-time employment among working mothers would generate a substantial increase both in living standards and in fiscal impact.

- An increase of five percentage points, which would make the UK a mid-performer compared to other OECD countries, would generate a net positive fiscal impact of approximately £750 million. This is a combination of increased tax revenue and savings on out-of-work benefits. The current population of mothers who are not working tends to be concentrated towards lower-income families, since they live in
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either workless or single-earner families. This implies that supporting out-of-work mothers into employment through more affordable childcare would particularly benefit families on lower incomes.

Supporting mothers who are already in work to increase their hours generates a large positive fiscal impact, as families move out of the means-tested benefit system and pay income tax and national insurance on the majority of their extra income. Our modelling shows that a rise of five percentage points in the proportion of working mothers employed full-time would generate a net positive fiscal impact of approximately £700 million annually. This also has a significant impact on living standards but this is concentrated in higher-income families, as low-income families are less likely to have a mother even in part-time work.

These figures rise with greater increases in the maternal employment rate. We present five per cent as an ambitious but realistic aim, given current economic forecasts.

While increasing mothers' employment rate and increasing full-time employment among mothers are not mutually exclusive policy goals, they do each suggest a different emphasis for childcare and early years policy. For instance, increasing the number of hours of the early years entitlement at ages three and four is more likely to help mothers who are already working part-time to work longer hours; extending the current entitlement to all parents of two-year-olds instead would help parents of younger children who currently out of work to move into employment.

Policy implications

This analysis suggests that the UK should be working towards three main priorities.

- More affordable childcare for mothers with children aged up to two, for low-skilled and for lone parents, in order to enable them to enter, or re-enter, employment,
- More affordable childcare to parents of three- and four-year-olds and families where mothers are already in work, in order to enable mothers to increase their working hours.
- A system that is supply funded and more affordable for parents: childcare should account for around 10 per cent of a family's disposable income.

These recommendations also assume a greater flexibility in childcare provision, so that parents have more choices; and better access to flexible working, with more accommodation from employers over different working options.

The current government policy direction fails to consider in any systematic way the different factors discussed in this report and how they might interact. There are real concerns that universal credit may result in lower childcare support for families on low incomes; and that tax free childcare will not only be biased towards higher-income families, but that childcare costs will continue to outpace the support offered in the proposals. This means that childcare costs for parents are likely to remain high for the foreseeable future. It also means that costs will continue to constrain employment decisions, especially for mothers.

There are too many mothers missing from work, and in large part this is because of the lack of affordable childcare. This is not an easy challenge to solve, but the benefits to children, families and society could be transformational.

1. INTRODUCTION

In recent decades there has been a substantial increase in the numbers of women employed in the UK. The gap between male and female employment rates has narrowed significantly. However, a significant gap remains; the latest data shows a difference of five per cent between male and female employment rates (ONS 2012).

The majority of this gap – around 90 per cent – is accounted for by the relatively low employment rate of mothers. In the first quarter of 2013, the employment rate of working-age women with dependent children was 67.5 per cent, against 76.2 for those with no dependent children (ONS 2013a). This gap between women with and without children is larger than the overall gap between women and men. And although there have also been changes in men's employment patterns, mothers still often have primary responsibility for childcare.

While there are many factors influencing mothers' participation in the labour market – such as preferences, job availability and the quality of childcare provision – this report focuses on the relationship between maternal employment and the affordability of early years education and care. It presents new empirical evidence alongside a review of the international literature, in order to consider how early years policy in the UK can be reformed to support families more effectively in balancing the dual responsibilities of work and care.

The international evidence suggests that there is indeed a relationship between maternal employment rates and the affordability of childcare; and that maternal employment increases when childcare is more affordable.² This analysis aims to understand that relationship in more depth.

We should be concerned about the low employment rate of mothers for several reasons. Firstly, employment has been shown to have a positive impact on maternal well-being. For example, Susan Harkness and Amy Skipp have found that mothers in employment (both those in a couple and single mothers) have lower levels of depression, as moving into work leads to improved mental health. This in turn affects their children because good maternal mental health is linked to good child development (Harkness 2012, Harkness and Skipp 2013).

Also, low levels of maternal employment exacerbate gender inequality in earnings. The period spent outside the labour market following childbirth leads to a 'motherhood pay penalty', a reduction in the earnings of mothers compared to women with no children. Previous research by IPPR has found that mothers born in 1970 earn around 11 per cent less (on average and controlling for a host of other individual characteristics such as educational attainment and social class) than women of the same age who do not have children (Lanning et al 2013). While there are other factors behind the motherhood pay penalty, it is certainly linked significantly to the break in economic activity brought about by childbirth and the resulting time out of paid work, which reduces mothers' ability to build up and retain skills and work experience. The evidence also suggests that the motherhood wage penalty rises with the length of the break. As a result, many families' livelihoods are undermined.

Finally, many mothers themselves say that they want to work and/or increase their working hours.

¹ The employment rate of working-age women is six percentage points lower than working-age men. If mothers are removed from this comparison, it falls to a gap of 0.6 percentage points.

² Throughout this paper we define the affordability of childcare in terms of the price parents have to pay. This is distinct from the total cost, since families get some hours of childcare for preschool children free, and may receive subsidies to meet part of some other costs.

Increasing maternal employment rates can have social and economic benefits for families. There is also a significant return to the Treasury, which could be used towards investing better quality childcare.

However, maternal employment is more complex than whether someone is in a job or not; it is necessary to understand some of the barriers that mothers experience in entering or re-entering work. Many women return to work part-time, and this carries its own pay penalty. Research has found that those women working part-time earn around 22 per cent less per hour than women working full-time, mostly because many move into lower-skilled employment (Manning and Petrongolo 2005). We should therefore be concerned not only about the low employment rate of mothers, but also about the type and quality of work they enter following childbirth, and the length of the period they spend out of the labour market. This work aims to understand some of the differences in employment patterns of different groups of mothers; for example mothers with different levels of skills, and mothers of under-fives of different ages. We then consider policy ideas for supporting mothers into and in work.

This report focuses on the relationship between the affordability of childcare for parents with children under five and maternal employment rates. We examine the international context with the aim of understanding which mothers are working, and why other mothers are not; the barriers to employment; and how the price of childcare has affected these. We then present new evidence based on modelling different employment scenarios: for example the economic return for families and to the Treasury of increasing the maternal employment rate in the UK. Finally we consider some policy ideas – for policymakers (local and national), and employers.

We focus explicitly on maternal employment, rather than parental employment in general. This is primarily because it is mothers who are most likely to leave the labour market following childbirth – in fact, fathers have a higher employment rate than men with no dependent children. Secondly, the international evidence suggests that the relationship between the availability and costs of childcare and fathers' rates of employment or hours of work is small to insignificant. This may change in the future, though – at least in the UK – as more recent evidence suggests that the fathers' working hours are now more affected by the fact that they have children. Sara Connolly and her colleagues compare 2011 with 2001 and find a substantial fall in the number of fathers working very long hours (48 and over), and a similar decline in the incidence of fathers wanting to work more hours. They also find that fathers of very young children tended to work fewer hours in 2011, whereas they did not do so in 2001 (Connolly et al 2013). This suggests that the link between child care affordability and paternal employment, which the current literature finds weak, may strengthen in future studies.

Our report is part of the wider IPPR project 'Childcare: a strategic national priority?', which seeks to analyse the case for, and the core components of, a more strategic approach to early years provision in the UK as well as to explore the impact of childcare on gender equality, maternal employment and child development. It focuses on the employment effects of childcare, but we also acknowledge that the impact of care on child development is equally important and indeed a recent report published by IPPR looks at child development (Parker 2013). The conclusions drawn in this report are primarily concerned with maximising the employment effect of childcare, but explicitly state any conflict or potential conflict with child development. The aim is then to outline a vision of early years provision that can make progress in both these areas.

2. AFFORDABILITY MATTERS: THE POLICY CONTEXT

International evidence suggests that there is a relationship between maternal employment rates and the affordability of childcare.³ Childcare costs for parents are high in the UK compared to other countries. These costs are continuing to rise above the rate of inflation; an annual survey showed overall costs increasing by six per cent in 2012, more than double the rate of inflation (2.7 per cent) (Family and Childcare Trust 2013).

With the current political focus on living standards, childcare costs have become a key battleground. In the 2013 budget, the government announced a £750 million a year package investing in childcare. Most of that (£550 million) is to extend tax free childcare from 2015. The rest (£200 million) is earmarked to fund additional support for working parents through universal credit. The Labour Party has announced a plan to extend the free entitlement to 25 hours for working parents of three- and four-year-olds should it win the next election.

These proposals are in line with previous attempts by UK governments to support families' use of childcare, and by extension parental employment. This has been done in two main ways: free provision of childcare to young children through the early years entitlement, and financial assistance to offset some of the cost of purchasing childcare, through tax credits and youchers.

The current offer

The level of support on offer has changed considerably over the last two decades. In 1998, four-year-olds in England were given an entitlement to 12.5 free hours of care a week over 33 weeks of the year. This was then expanded to cover three-year-olds in 2004, before being extended to 38 weeks for all three- and four-year-olds in 2006. In 2010, the hours were increased to 15 a week. More recently, the current Coalition government has expanded the 15 hours offer to two-year-olds from the most deprived 20 per cent of families, and this will be widened to cover the 40 per cent most deprived two-year-olds from 2014 (Kennedy et al 2012).

The level of financial assistance has increased as well. Before the last government introduced working tax credits in 1999, families being means-tested for family credit were able to disregard childcare expenditure of up to £100 a week. After this, a childcare component was added to working tax credits, offering a refund on childcare fees. This was set initially at 70 per cent of up to £100 of childcare fees for families with one child, or £150 for families with two or more children. The value of this support increased steadily, so that by 2010, 80 per cent of up to £175 (one child) and £300 (two or more) was refundable (Kennedy et al 2012).

This system will change under universal credit. Under the current plans, parents will be eligible for up to 85 per cent of childcare costs for lone parents and couples where both parents are in work and paying income tax, or 70 per cent for those in work but not both paying income tax. The monthly limits will also increase to £532.29 for one child and £912.50 for two or more children.

For those earning more and therefore not eligible for the childcare component of tax credits, a system of employer-supported tax-free childcare vouchers was introduced in 2005. Employees working at firms which had signed up to the scheme were offered tax relief on childcare expenditure with approved providers, worth up to £50 (£55 from 2006)

³ Affordability is defined here as the price of childcare for parents. The final report in this project will consider the overall cost of childcare in more detail.

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a week. In April 2011, higher rate taxpayers were restricted in the value of the tax relief they could claim on the eligible amounts from 40 per cent (the higher rate of income tax) to the 20 per cent paid by basic rate taxpayers.

The current government's proposals change the system significantly. Starting from 2015, we will move away from employer-led vouchers to a universal system where families with all parents in work and not claiming universal credit will see tax relief at 20 per cent on childcare expenditures of up to £6,000 a year per child aged under five, equal to £1,200 a year. This will then be progressively extended to older children; every year the eligible age will increase by one year, until all children under 12 will be eligible. There are currently no plans for a transition system for parents of children aged over five in the first year of the scheme (Seely 2013 and HM Treasury 2013).

Although any initiative to tackle the high costs of childcare for parents is welcome, there are real concerns that these proposals may not lead to more affordable childcare for parents. For example analysis has shown that the scheme is skewed towards benefiting higher income families (Alakeson et al 2013). There are also concerns with the way that childcare costs will interact with universal credit; will support for childcare costs be reduced for families whose income is under the tax threshold (Schmuecker 2013, Davey 2013)? IPPR's recent analysis of the impact of tax-free childcare also suggests that childcare costs will continue to outpace the government's tax relief proposals (Ben-Galim 2013). These concerns demonstrate that it is a challenging and complex issue.

Mothers' choices

Affordability is obviously a crucial factor in the choices that parents make about work. Moving (or moving back) into work will bring in extra earnings, but it usually also involves some financial outlay, especially for parents who cannot call on family and friends. A recent survey commissioned by the Department for Work and Pensions found that 43 per cent of parents of children aged between three and four who would like to work or work longer hours cite the affordability of childcare as a barrier, rising to half among parents with a youngest child aged two or under. Among couples with a child under school age where one or both parents work less than full-time, more than 60 per cent said they would be willing to increase the amount they work if the extra childcare costs were covered by the government (Borg and Stocks 2013).

Conversely, as the price of childcare rises, and/or the hours are not available, the incentive for out-of-work parents – the majority of whom are mothers – to return to work reduces. This is particularly the case for those likely to move into lower-paid work, such as those with few or no qualifications, since childcare costs account for a larger proportion of their earnings, and they may also lose tax credits and benefits.

Of course, financial incentives are not the only factor that determines the number of mothers who return to work, but it is clear that society overall has changed considerably in recent decades. Given that one in three working mothers is now a breadwinner (earning as much as or more than her partner) the suggestion that most mothers do not want to or should not work is now clearly outdated (see Ben-Galim and Thompson 2013). The Understanding Society survey reports that among the last generation for which data is available (born between 1966 and 1979) around 10 per cent of men, and considerably fewer women, agree with the statement 'a husband's role is to earn money and a wife's

⁴ In addition, families claiming out-of-work and most means-tested benefits will consider how they might become ineligible for these benefits, or eligible for a reduced amount, by starting work.

is to look after the home' – whereas the percentage for those born before 1945 is around double that (Duffy and Clemence 2013).

In their review of the literature on maternal preferences for work, Nadia Steiber and Barbara Haas (2012) find that while there is evidence of a link between individuals' preferences about work or family care and their employment behaviour, the relationship between the two may run both ways. Many mothers who are initially less happy to be working outside the home change their minds over time, both about employment and about paid childcare. Steiber and Haas also report findings from several studies that show inconsistencies between women's working behaviour and their attitudes, with, for instance some mothers not in employment believing strongly that mothers should be able to work, which they suggest indicates barriers to families achieving their desired work-care balance. Similarly, Daniela Del Boca and her colleagues present some compelling evidence that low preferences for maternal work among most southern European economies (with the exception of Portugal) may also be the result of structural features of the economy, such as the lack of part-time jobs (Del Boca et al 2002).

The international context

A review of the international evidence supports the argument for a significant link between affordable childcare and higher maternal employment rates. This holds true both for women entering or re-entering work and those increasing existing working hours.

Many studies try to account for the wide cross-country disparities in maternal employment using a range of economic, institutional and policy factors. This research has consistently found a strong association between the level of public support for childcare and maternal employment levels, even after accounting for a host of other factors.

Government support for childcare is measured in these studies either in terms of the value of cash subsidies for purchasing childcare, or in terms of the supply and take-up of publicly provided childcare which is either free (such as the free entitlement in the UK) or heavily subsidised. One international analysis of the variations between mothers' hours of employment one year before and two years after having a child in different countries finds that the availability of public childcare accounts for 33 per cent of the international disparity (Uunk et al 2005). This is greater than the other factors included in this model, such as individual level characteristics like educational attainment and national variations in economic affluence and attitudes towards gender and work.

Becky Pettit and Jennifer Lynn Hook analyse the effect of having a child aged up to two on the probability of maternal employment across 19 countries, using data on the public provision of childcare. They find that in countries with a greater level of enrolment in publicly funded childcare, the probability of maternal employment is higher. In fact on average, a percentage point increase in the proportion of children aged up to two in publicly funded childcare is associated with a 2.9 per cent increase in the likelihood that mothers of children aged up to three will be in work (after accounting for other factors such as educational attainment, age and relationship status) (Pettit and Hook 2005). Steiber and Haas reach a similar conclusion (Steiber and Haas 2009). While it is too simplistic to suggest a direct correlation, and it is likely that the impact of childcare in different countries depends on the structure of their labour market and the initial level of maternal employment, this evidence does point towards a positive relationship.

The evidence at a national level is more mixed, but nonetheless often finds a significant impact of free or affordable childcare on maternal labour supply. The most often cited

example is the Canadian province of Quebec's childcare programme, which offered parents full-time care for under-fives at the heavily subsidised price of \$5 per day, later rising to \$7. This was implemented in stages, starting in 1997 with four-year-olds and extending over the following years to younger children. Several studies have shown the policy has had a significant impact on maternal employment.⁵ Michael Baker and colleagues compare the employment rates of married mothers in Quebec to elsewhere in Canada and find an eight percentage point increase in maternal participation in the labour force (Baker et al 2005). More recent studies by Pierre Lefebvre and his colleagues compare the employment patterns of mothers of eligible children against the patterns among similar mothers in other Canadian provinces not covered by the policy. Looking across the first decade of the policy, they find that the participation rate of mothers with children aged between one and five was approximately eight percentage points higher in Quebec (Lefebvre and Merrigan 2008, Lefebvre et al 2011).

There are many other examples from countries that have enacted similar reforms. A price cap on Norwegian childcare contributed to an increase in maternal employment of four percentage points (Hardoy and Schøne 2009). Marianne Simonsen's analysis of Danish mothers in the early 2000s finds that on average a 10 per cent increase in the price of childcare would have reduced their employment rate by between one and 2.5 per cent in the first year following childbirth (Simonsen 2010). Other studies find similar results for Spain and Israel respectively (Schlosser 2011, Nollenberger and Rodriguez-Planas 2012).

There are also exceptions. Reforms capping Swedish prices in 2002 appear to have had no impact and nor does the provision of free universal kindergarten care in three states of the US (Lundin et al 2007, Fitzpatrick 2010). While there are important differences in the methodologies used across the literature, which is likely to explain at least some of the variation in results, researchers have also suggested two other very significant factors.

Maria Donovan Fitzpatrick compares the results of her work in the US to those found in similar studies, conducted on data consistent with hers but dating from several decades ago. The earlier research did find that childcare affordability substantially increased maternal employment. She suggests that women may now be less responsive to this incentive, because far more mothers in the US are now in work in any case. Those that are currently workless are more likely to face other barriers such as a lack of qualifications and/or experience, which make it even more difficult for them to find employment (Fitzpatrick 2010 and 2012). Other research from the US supports the argument that the women who are out of work are now less responsive to financial work incentives in general (Heim 2007).

Another paper looking at a reform that reduced Norwegian childcare prices in a similar way to the Swedish cap also found that more affordable childcare did induce a significant maternal employment response. Authors Inés Hardoy and Pål Schøne suggest that this could be caused by the fact that as prices were originally higher in Norway than in Sweden they dropped more significantly after the cap, suggesting that this policy would be more effective in a country where the original costs were at a similar level to Norway's. In addition, they note that the supply of childcare places increased by a greater number in the Norwegian case than in the Swedish reform (Hardoy and Schøne 2013).

It should be noted that the Quebec childcare policy, while having a significant positive impact on maternal employment, was found to have a detrimental impact on child development for some children who enrolled, emphasising the importance of considering both objectives when designing early years policy (Baker et al 2005).

Taken together, the conflicting results found in the literature suggest that in countries where a high proportion of mothers are already working, or childcare is already affordable, reducing the cost of childcare will have little impact on maternal employment. The UK, by contrast, is characterised by internationally high childcare prices and a maternal employment rate less than the international average. This means action to reduce the price that parents face for childcare is needed to reach a tipping point and support higher maternal employment in the UK.

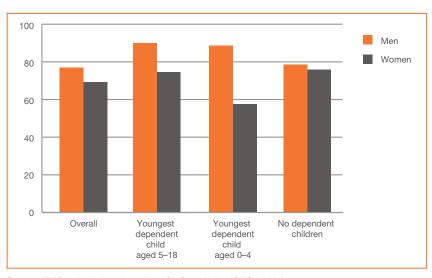
3. THE SCOPE FOR INCREASING MATERNAL FMPI OYMENT

Compared to other countries, the UK has relatively high rates of female employment and low rates of maternal employment. This chapter looks across the population of mothers in the UK to pinpoint the key maternal employment gaps. It looks at this variation using the latest UK data, and considers how these patterns have shifted over time, and in comparison to other OECD countries. This is important for policy, because it identifies the groups of mothers who face the largest childcare-related barriers to work, and the mothers and families who stand to gain the most from more affordable or available childcare.

Children's ages

The age of the youngest child matters: see figure 3.1 (the 'no dependent children' category includes some parents whose children are adults, as well as individuals that have never had children). The percentage of mothers of under-fives in work is under 60 per cent. This rises to 67.1 per cent among mothers of older, school-age children but this is still substantially lower than the 75.2 per cent of women with no dependent children who are in work. By contrast, fathers of under-fives have a much higher employment rate of almost 90 per cent. In addition, the vast majority of lone parents, around 92 per cent, are women and so face greater caring responsibilities which in turn can impact on their ability to work outside the home (ONS 2012).

Figure 3.1 Employment rates by gender and age of youngest child, 2012 (%)



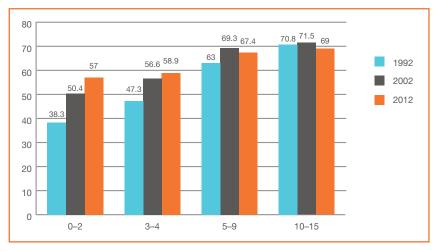
Source: IPPR calculations based on ONS statistics (ONS 2013a)

Looking at the distribution of maternal employment by the age of families' youngest child across the last two decades reveals three important trends (figure 3.2).

- Maternal employment rates rise as the age of youngest child goes up, although over the last two decades this increase has become less pronounced. In 1992 there was a difference of almost 25 percentage points in the employment rates of mothers with a youngest child aged 0–2 and those with a youngest child aged 5-9. This difference has shrunk to around 10 per cent.
- The employment rate of mothers with a youngest child aged three or four has risen by over 10 percentage points since 1992.

 Over the last 20 years there has a large increase in the employment rate of mothers of very young children. This is partly linked to greater statutory entitlements to maternity leave.⁶

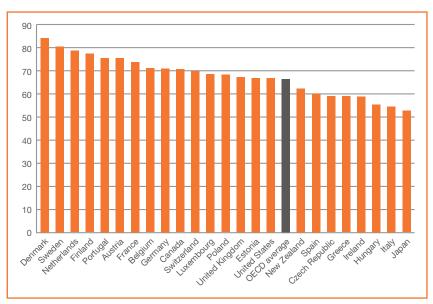
Figure 3.2 Maternal employment rates by age of youngest child (%)



Source: IPPR calculations based on ONS statistics (ONS 2013a)

The shape of the maternal employment distribution against the age of families' youngest child also reflects family preferences; 37 per cent of mothers of under-threes not on parental leave are not in work and state they do not want to work, the vast majority citing family care reasons. This falls to 25 per cent among mothers with a youngest child aged between three and four and to 15 per cent among mothers of children aged between five and 15 (ONS 2012).

Figure 3.3 Maternal employment in a selection of OECD countries, 2009 (%)



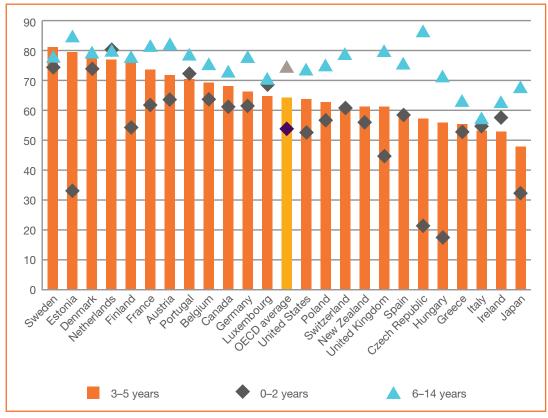
Source: OECD 2012

⁶ During maternity leave, terms and conditions of employment stay in place meaning that a women is still employed. Research shows that the vast majority of women (77 per cent) who return to work do so 12 to 18 months after the birth of their child (Chanfreau et al 2011).

Figure 3.3 shows maternal employment rates for a selection of OECD countries in 2009 (the latest available evidence). With the caveat that 2009 was an abnormal year for labour markets in most advanced economies, and most European countries experienced a sharp increase in unemployment levels, the wide disparity in maternal employment rates is nonetheless apparent. The UK has a maternal employment rate close to the OECD average, at just under 70 per cent. However, there is a striking difference between the UK and the top performers, with Denmark, Sweden and the Netherlands all reaching maternal employment rates of around 80 per cent.

By comparison, figure 3.4 presents maternal employment rates for a selection of OECD countries by the age of families' youngest child. It shows that the UK has an above average employment rate for mothers whose youngest child is of school age (from six to 14) of 73.8 per cent. The UK also has an above average employment rate for mothers of children aged two and under, with 55.9 per cent in work against an OECD average of 51.4 per cent. It is worth noting, however, that the UK still performs substantially below the top performers such as Sweden, Denmark and the Netherlands for both age groups. Among mothers of those aged three to five, the performance of the UK lags behind the OECD average of 64.3 per cent, with only 58.2 per cent of mothers in work. Sweden's maternal employment rate is over 80 per cent for this group of mothers, with a group of countries such as Denmark, the Netherlands, France and Portugal all above 70 per cent.

Figure 3.4
Maternal employment
rates for a selection of
OECD countries by age
of youngest child, 2009



Source: OECD 2012

These maternal employment patterns indicate that mothers are increasingly likely to work as the age of their youngest children rises, with important increases around the age at

which children start school. While this may again be related to rising preferences for work as children get older, it is also linked to the fact that they are in school for a large proportion of the day. And although not all work hours are compatible with the school day, and there are problems with the availability of wrap- around care, the transition into school does mark a change in employment patterns (part-time or full-time) for many mothers.

Mike Brewer and Gillian Paull find that when a youngest child starts school in the UK, around a quarter of non-working mothers move into work. While there are still substantial levels of churn, with around 11 per cent of working mothers leaving employment, this nonetheless results in a net increase in maternal employment; between the June before a child starts primary school and the September the year after the employment rate rises by 3.4 per cent (Brewer and Paull 2006).

Looking at the impact of starting school on American maternal employment, Jonah Gelbach finds a similarly sizeable increase in maternal employment of between six and 24 per cent, depending on family characteristics. In addition, he finds that this effect extends to younger children, since in the US at the time of the survey many three- and four-year-olds were eligible for publicly funded preschool programs. This suggests that both age of child and the right to free education with stable and secure hours has an impact on employment decisions (Gelbach 2002).

Costs and availability

But the data also reveals differences for mothers of preschool children and, as Gelbach's work demonstrates, the availability of free or affordable childcare is also a factor. The evidence from other countries suggests that affordable childcare for children aged up to two could offer more options for mothers to return to work, or enter the employment market for the first time.⁷

In the UK maternity leave provision (for those in work and eligible) lasts a year; and a free entitlement of 15 hours of childcare is being offered to the 40 per cent most disadvantaged two-year-olds and then to all three- and four-year-olds. This means that apart from any childcare vouchers or tax credits that they may claim, parents have very little support between the end of maternity leave and the beginning of their free entitlement.

Tackling the motherhood wage penalty

Affordable childcare is also linked to the size of the motherhood wage penalty. Michelle Budig and her colleagues find that the size of the wage penalty varies substantially between different countries, and that while it is associated with a variety of family policies, including parental (and paternity) leave, these policies clearly include the provision of publicly-funded childcare for children aged up to two; moving from countries where no children this age are in childcare to one where around 40 per cent are in childcare reduces the pay penalty from a drop of 10 per cent to one of four per cent. They find no such link for children aged between three and six, however (Budig et al 2012). Another study using American data finds that the length of break can account for 60 per cent of the motherhood pay penalty (Staff and Mortimer 2012). A Finnish study finds a similar result, but also suggests that after two years the penalty levels off (Napari 2010). IPPR analysis has shown a pay differential between women who have had children and those who have not, with mothers earning 11 per cent less compared to women without children.

⁷ See above: mothers on maternity leave are employed but are on leave, either paid or unpaid paid depending on state and company provision. The age range is 0–2 for data purposes. It does not suggest that mothers return to work immediately after having children.

The same analysis also demonstrates a 'motherhood pay gap' compared to fathers; mothers born in 1970 could expect to earn 26 per cent less than the average father by the time they were in their late 30s (Lanning et al 2013).

Research in the Netherlands found that introducing a childcare subsidy available to all parents had a positive impact on mothers of children up to three and mothers of children between four and seven. The subsidy, which led to a fall in the average fee faced by parents of around 50 per cent, was found to increase the maternal employment rate by 2.3 percentage points (Bettendorf et al 2012). Another study in France found that when children start preschool at age two, there is a significant positive impact on lone parents' employment, although not on mothers who are living with a partner (Goux and Maurin 2001). Alexander Bick (2010) simulates the impact of increasing the supply of subsidised childcare for children aged up to two using a sample of West German mothers, finding that it raises the number of mothers working part-time by five per cent and full-time by 2.4 per cent.

One study looking at Quebec's \$5 a day policy, which covered all children aged between one and five, found that it had the largest impact on mothers with a youngest child aged either one or three. Between the third and seventh years of the policy, they found it increased maternal labour supply by an average of 12 percentage points for mothers of one-year-olds, and 14 per cent for mothers of three-year-olds (Lefebvre and Merrigan 2011). The policy was rolled out in a way that meant that mothers of older preschool children were eligible first, before it was extended to younger children. However, the strong effect found for mothers of one-year-olds occurred even before they were eligible, which the authors suggest may be related to families' needs to secure a childcare place.

In general, countries with high maternal employment rates also have affordable childcare at all ages between one and five. For instance, in Sweden parents are eligible for the same level of support irrespective of their children's age. Similar systems operate in Norway and in Denmark. Cross-country studies have also found differences in aggregate maternal employment rates to have a greater link with public childcare provision and enrolment at ages up to two than at ages three to four.

Irene Broeckmann and colleagues have looked at the gap in employment and hours worked between mothers and women without children across 19 countries, finding that it is closely linked to the proportion of children enrolled in publicly supported childcare aged up to two (there is no equivalent relationship for those aged 3–5) (Broeckmann et al 2013). Pettit and Hook (2009) reach a similar conclusion. Other studies do find an impact at three to five, but it is smaller than that for children aged up to two (Eliason et al 2008, Hicks and Kenworthy 2008).

Given that greater childcare support at one or two is likely to have a significant impact on maternal employment, it will also help to reduce the motherhood wage penalty. Most studies that look at the long term impact on women's wages of having children find that the longer the break in employment, the greater the drop in wages when mothers do return to the workplace (Budig et al 2012, Staff and Mortimer 2012). Importantly, studies that allow the impact to change over the length of the gap find that it levels off after around two years (Napari 2010). Therefore increasing the support for childcare at younger ages is vital both for increasing maternal employment and for reducing the gender wage gap.

Part-time work

Mothers who are in work are also much more likely to be working part-time, compared to other women of working age. This is partly the result of their own choice, but there is also evidence that a sizeable minority of mothers currently working part-time, particularly in lower income groups, would prefer to be working more hours. A Resolution Foundation survey in partnership with Mumsnet of nearly 2,000 mothers showed that one in five working mothers want to work more – on average 10 more hours a week; while 40 per cent of those currently not in work want to work, on average for 23 hours a week (Alakeson 2012). It is also lower-earning mothers who are more likely to want to work more. On average, the gross earnings of those who wanting to work more is £13,000 compared to £29,000 for those who do not.

Table 3.1 shows that more mothers with a youngest dependent child aged three and up work part-time than full-time. The low number of part-time workers among mothers of children aged 0–2 reflects maternity leave, for which mothers are counted as being in full-time work if they were before they went on leave. The proportion of mothers of children aged three to four who are working part-time increased at a much faster rate than full-time maternal employment between 1992 and 2002. Since then the part-time employment rate has decreased slightly but remains over 10 percentage points higher.

Table 3.1

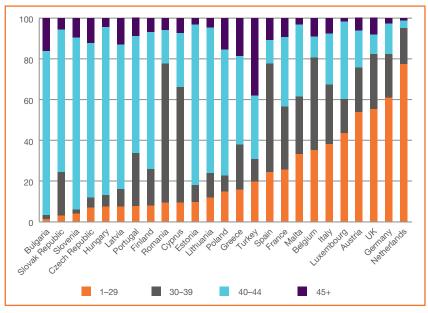
Part-time and full-time employment as a percentage of maternal population, by age of youngest child (%)

	1992		2002		2012	
	PT	FT	PT	FT	PT	FT
0–2	17.3	21.0	26.7	23.7	27.4	29.6
3-4	26.8	20.5	35.0	21.6	34.4	24.4
5-9	41.0	22.0	43.4	26.0	41.3	26.1
10–15	40.2	30.6	40.4	31.1	37.7	31.2

Source: IPPR calculations using ONS data (ONS 2013a)

Figure 3.5 presents data on the hours worked by mothers in couples, in the UK and compared internationally.

Figure 3.5
Distribution of hours
worked among employed
mothers in couples of
0-14-year-olds (%)



Source: OECD 2012

The chart shows that the UK has the third highest proportion of mothers working part-time (up to 29 hours a week) in the OECD, lower than only Germany and the Netherlands. The countries with the lowest levels of part-time working tend also to have a much larger proportion working 40 or more hours, and relatively few working between 30 and 39 hours. The UK has very few mothers, less than 20 per cent of those employed, working 40 or more hours.

Women in the UK are substantially more likely than men to work part-time. In 2011, almost 40 per cent of women in employment worked part-time hours compared with less than 12 per cent of men. There are numerous explanations for why this is the case, but chief among them is the fact that the greater care responsibility shouldered by both mothers and older women affects their preferences about full-time work, and limits their ability to move into it. It also affects the work that mothers do; part-time work opportunities in the UK tend to be concentrated in low-paid occupations. Evidence from other countries, such as the studies in Quebec and the Netherlands cited above, shows that childcare reforms also have a positive impact on the hours that working mothers do, and make it possible for many to increase their working hours.

The lack of flexible working and the low pay associated with part-time working in the UK will continue to constrain choices for many women – and mothers in particular – in the labour market. Women with lower qualifications and those who have children at a younger age find it harder to secure good jobs and opportunities at work; after they do find a job, many may not have the option to reduce their working hours because they will lose their income, or they may be concerned that they will be perceived as less committed.

In addition, the maternal employment impact of affordable childcare is long-lasting. The Quebec reforms, providing a full-time place for every child at low cost, caused an immediate effect on the labour supply of mothers when it was introduced in 1997 but the impact three years afterwards was even larger. Similarly, average annual hours worked by mothers increased by 84 hours in 1999 as a result of the policy, but by 2002 this had increased to an impact of over 230 hours (Lefebvre and Merrigan 2008). In Spain, the significant positive effect on maternal employment of expanding public childcare to three-year-olds persisted for individual mothers for up to three years afterwards, wearing off as children start school (Nollenberger and Rodriguez-Planas 2012). Affordable childcare is therefore likely to have a cumulative effect over time, reducing the maternal employment gap.

Skills and education

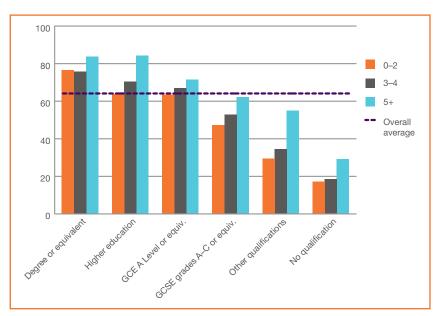
Skill levels significantly affect people's ability to work. Highly-skilled people can command higher wages, and have greater incentives to move into work. Qualifications and educational attainment do not necessarily equate to skills, but are generally used as a good indicator of a person's skill levels. IPPR analysis has also shown a widening pay gap between women based on levels of educational attainment. Female graduates (born in 1970) earned approximately 75 per cent of male graduates' wages. However, the pay gap between women with and without degrees was even bigger than this: graduate women earned 32 per cent more than women without degrees. By comparison the pay gap between men with and without degrees was only 17 per cent (Lanning et al 2013).

Figure 3.6 shows maternal employment rates by highest qualification and age of youngest child (excluding mothers who are still on maternity leave). It shows that employment rates rise substantially with educational attainment. Among women whose youngest child is aged between three and four, there is a large gap between those with five GCSEs A*-C

or higher (who have an employment rate of more than 50 per cent) and those with fewer qualifications (for whom employment rates are less than 40 per cent). There is a similar gap for parents of younger and older children.

However, this does not cancel out the employment gap completely; and women across the educational spectrum demonstrate the pattern of rising employment rates as their children get older which this chapter has already discussed.

Figure 3.6
Maternal employment rates by age of youngest child and level of highest qualification



Source: IPPR calculations using Labour Force Survey Q2 Household Dataset (ONS 2013a)

Internationally, the disparity in mothers' employment rates is largely driven by mothers with lower levels of educational attainment (Del Boca et al 2009). In some countries, like Sweden, large numbers of women in this group are working while in others, including the UK, they are much less likely to be participating in the labour market. The international evidence also suggests that as countries increase the availability and affordability of childcare, mothers on the margin of employment are affected the most. This group varies depending on the time and place, but two key elements are mothers' skill levels, as measured by their qualifications, and whether or not they have a partner (discussed below). Given the low maternal employment rates of women with fewer qualifications in the UK, the potential to focus on this group to support women into work seems of critical importance.

Since wages tend to track individuals' educational attainment closely, we would expect the hourly cost of childcare to form a larger proportion of less qualified women's wages. Any reduction in the price of childcare will therefore make more of a difference for women with fewer professional qualifications, and make working more financially viable. Mothers with higher educational qualifications are more likely to be in work already, so that reducing their childcare costs will have less of an impact on the actual numbers. Given that mid- and lower-skilled mothers are more likely to have lower expected wages, they are also likely to be more sensitive to childcare costs and therefore we would expect them to respond more to affordable childcare in terms of maternal employment than more highly-skilled mothers.

For instance, a reform in Spain that increased the supply of childcare for three-year-olds in the mid-1990s had the largest employment impact on mothers with intermediate level skills, and little effect on mothers with a degree, who were already working in large numbers (Nollenberger and Rodriguez-Planas 2012). Walter Korpi and colleagues' assessment of the impact of different systems of family policies on the employment rates of women at different levels of educational attainment finds that more generous family policies have the largest employment impact on women with medium levels of educational attainment (Korpi et al 2013).

The very low employment rates of low-skilled mothers is concerning, and warrants a distinct focus on this group. The skill disparity is striking; although employment rates rise with the children's age, the employment rate of mothers with a degree and a child aged up to two is almost three times that of a mother with no qualifications and children of school age, although we would usually expect rates to rise the later age. Combined with the evidence of a wide wage disparity between high-skilled and women with few qualifications and less experience, this is worrying. It suggests that without reform, those further from the labour market will continue to struggle to enter any type of employment.

Relationship status

The relationship status of mothers, whether they are in a couple (either married or cohabiting) or are a lone parent, is also significantly linked to economic activity. Couples have a greater opportunity to 'shift parent', arranging their working patterns so that mothers and fathers can split parental child care commitments, than lone parents. In addition, lone parents only have one source of earnings, so tend to have lower family incomes. This means any childcare costs take up a higher proportion of family income and can act as a greater barrier to work.

Table 3.2 shows the employment rate for mothers by relationship status and age of child. It shows the significant gap in employment rates between the two groups of mothers, with approximately 40 per cent of lone parents with a youngest child aged 3-4 in employment in 2012, versus almost between 60 and 65 per cent of mothers in couples. And the disparity for mothers of 0-2 year-olds is even wider, with a gap of almost 30 percentage points in the employment rates of lone and partnered parents. Even so, there is still a large jump in employment rates between this group and those mothers with a youngest child of school age.

Table 3.2
Maternal employment
rates by relationship
status and age of child,
2012 (%)

	0–2	3–4	5–9	10–15
Married	63.3	64.9	71.2	70.1
Co-habiting	59.8	59.5	70.7	77.2
Lone parent	35.0	41.6	56.5	65.0

Source: IPPR calculations using ONS data (ONS 2013a)

Table 3.3 Lone parent maternal employment rate by age of youngest child, 1992–2012 (%)

	0–2	3–4	5–9	10–15
1992	16.1	27.9	42.5	58.2
2002	26.1	39.5	54.8	60.7
2012	33.6	38.0	56.5	65.0

Source: IPPR calculations using ONS data (ONS 2013a)

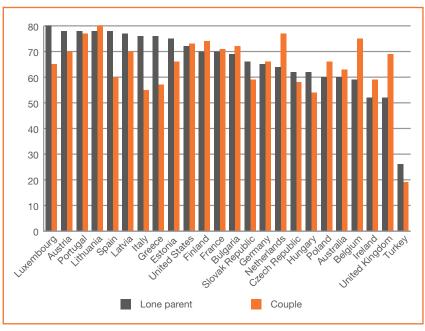
Looking at how lone parent work patterns have changed over time, table 3.3 shows the employment rate for lone mothers against the age of their youngest child for 1992, 2002 and 2012. It shows that, in keeping with the overall pattern, the largest increases have

been for mothers of newborn babies and for mothers of children aged between five and nine, with a smaller but sizeable increase of around 10 percentage points among mothers of three- and four-year-olds and almost seven percentage points among mothers with a youngest child aged between 10 and 15.

Finally, compared to other economies, and for all mothers, the UK has the second lowest employment rate for lone parent mothers, with a significant gap of almost 30 percentage points between the UK and the top performers such as Luxembourg, Austria and Portugal: see figure 3.7 (the data refers to parents of both sexes with dependent children of any age, but as the vast majority of lone parents are women it is clear that women will be disproportionately represented).

Based on this evidence alone, the low employment rates of lone mothers compared to mothers with partners suggests significant scope for increasing their employment rates in the future.

Figure 3.7
Employment rates of lone parents and parents with partners in OECD countries, 2008



Source: OECD 2012

In general, it is found that lone parents are more responsive to financial incentives for employment, including the higher net wage granted by affordable childcare (Immervoll and Barber 2006). This is partly because mothers living with their partners have more scope for sharing informal parental care between parents (Goux and Maurin 2010). However, low-income lone parents actually face very low net childcare prices, at least in the UK, because they have quite a lot of support. This comes from two sources – the childcare costs income disregard when calculating eligibility for housing benefit and council tax benefit, and the support they receive under working tax credit. The OECD estimates that a lone parent on 67 per cent of the average wage faces childcare costs of only around four per cent of net income (OECD 2012). This may change with the introduction of universal credit, when it is likely this group will see childcare costs increase; but it does suggest that the low level of employment in the UK among lone parents is determined more by other factors than the price of childcare.

The barriers for lone parents are often more to do with whether work and/or childcare is actually available, especially outside traditional working hours.

This evidence suggests that while some mothers actively choose not to work outside the home, structural factors to do with access to childcare, childcare costs and the shape of the labour market all play a very important part in mothers' employment rates. The next section looks at other aspects of childcare, such as the number of hours provided and the flexibility of provision.

4. EXPLAINING THE RELATIONSHIP BETWEEN MATERNAL EMPLOYMENT, AFFORDABILITY AND FLEXIBILITY

The analysis to date has demonstrated that there are particular groups of mothers on whom policy could focus to support with getting into or back into work. But childcare is not simply a commodity that parents buy. The literature points to a range of other factors that that seem to contribute to the decisions that parents – especially mothers – make about work and care. This chapter explores whether there is a tipping point of affordability – an optimal or maximum amount that families can afford; and it also explores the impact of the availability and flexibility of hours offered.

Is there an affordability tipping point?

At what price does childcare maximise maternal employment? While the early years entitlement in the UK is free, parents need to pay for childcare at other ages and for any other childcare they use in addition to the 15 hours that the entitlement provides. Offering childcare free of charge obviously maximises parents' ability to pay, but it is also important to look at how a range of childcare cost affects maternal employment.

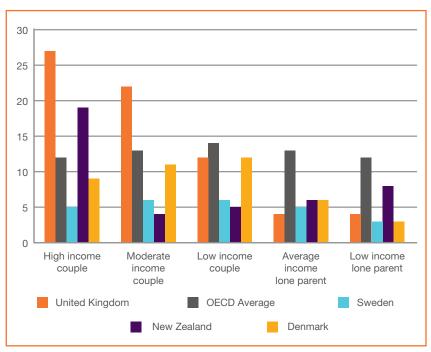
First, it is important to distinguish between the costs of childcare provision and the price that families actually face. The cost of provision, whether it is provided by the public, private or voluntary sectors, depends on a variety of factors. These include staff costs, the ratio of staff to group sizes and other costs such as administration, property and capital expenditures.

The price faced by parents is partly a function of these costs, but is also determined by policy. The early years entitlement directly funds providers to offer 15 hours for three- and four-year-olds at no charge, and the means-tested benefits available to parents to offset childcare costs will also influence the end price that parents pay. The total amount of childcare expenditure paid by families is determined by this price, but also by the number of children they have, their ages, and the number of hours of care they use.

This means that the proportion of a family's income devoted to childcare costs varies substantially between different family types. The OECD has carried out several surveys exploring how childcare expenditure varies across countries and for indicative family types. Figure 4.1 presents this information for the UK, the OECD as a whole and for three other OECD countries; Sweden and Denmark because they are typical of a high maternal employment system with substantial public support for childcare costs, and New Zealand because it shares some characteristics with the UK, having a mixed public and voluntary/ private childcare market. For the purposes of calculation:

- family net income is defined as gross earnings plus cash benefits minus taxes and social security contributions
- every family is assumed to have a two year-old and a four year-old child
- a 'high income couple' has two parents working full-time with average earnings
- a 'moderate income couple' has two parents working full-time, with a father earning at the 25th percentile of the male full-time earnings distribution, and a mother earning at the median of the female earnings distribution
- a 'low-income couple' has two parents working full-time, with a father earning at the 25th percentile of the male full-time earnings distribution, and a mother earning at the 10th percentile of the female earnings distribution
- an 'average income lone parent' is a mother working full-time at the median of the female earnings distribution
- a 'low-income lone parent' is a mother working full-time at the 10th percentile of the female earnings distribution.

Figure 4.1
Net childcare costs as a proportion of family net income



Source: Richardson 2012

Note: These calculations place the UK well above the OECD average for high and moderate income two-parent families, just below for low income two-parent families, and substantially below the OECD average for lone parents. The proportion of family income spent on childcare, compared to the other countries, is higher for two-parent families and similar for lone parents.

What about the other factors that also limit the ability of mothers in lower income families to balance work and care? In a previous IPPR report, Dalia Ben-Galim has explored the reasons behind low take-up of childcare among disadvantaged families through focus groups with parents. Apart from cost, parents were concerned about the quality of care (particularly for under-twos), the lack of flexibility in accessing the free entitlement, and the need for services located close to home (Ben-Galim 2011b). This emphasises the need to focus on other things beyond affordability.

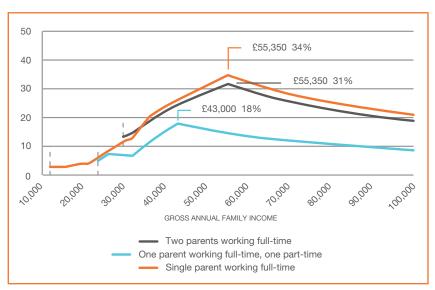
Vidhya Alakeson and Alex Hurrell give a more complete picture of the way UK childcare costs vary between families (Alakeson and Hurrell 2012). They look at costs as a proportion of net family income (excluding the value of childcare benefits) for three family types, each with two children aged two and four:

- a couple both working full-time and using full-time childcare
- a couple with one parent working full-time and one part-time and using part-time childcare
- a lone parent working full-time and using full-time childcare.

Figure 4.2 shows childcare costs vary under the current system of the early years entitlement and means-tested childcare cash subsidies in working tax credit and childcare vouchers, to produce different spikes in childcare related expenditure for each type. In particular, couples with preschool children working full-time are likely to spend more than 10 per cent of net family income on childcare regardless of their earnings, peaking at around 30 per cent for those earning slightly over median household incomes. Families with 1.5 earners, however, spend less than 20 per cent of net family income on

childcare across the income distribution. It is likely the sharp disparity in childcare costs as a percentage of net family income between dual-earning and 1.5-earner couples is a factor behind the high levels of part-time working among parents – and more particularly mothers – of young children. Lone parents earning less than median household income tend to face low childcare costs as a proportion of income, but as their incomes rise and means-tested childcare benefits taper away their childcare expenditure rises rapidly.

Figure 4.2
Net childcare
expenditure by gross
annual family income,
as a percentage of net
family income (excluding
childcare benefits)



Source: Alakeson and Hurrell 2012

Note: The vertical lines indicate the minimum income where the second earner works at the minimum wage and the main earner's hourly wage is 50 per cent higher (where applicable). In each case the family has two children in care, aged two and four, which is in line with the second earner's hours (23 hours for part-time and 42.5 hours for full-time).

Many countries with significant levels of public childcare provision and high rates of maternal employment charge parents fees to access childcare. For instance, parents in Denmark spend between seven and 10 per cent of net family incomes on childcare: which translates into parents covering around 11 per cent of the cost of childcare provision. In Norway, a dual-earner family on 167 per cent of the average wage pays 11 per cent of net family income, or 15 per cent of costs; the same family in the UK pays 27 per cent of net family income or 41 per cent of costs (OECD 2012).

Usually the costs for parents are means-tested based on family characteristics and income. Household income, the number of children, the age of the child and the type of provision may all be factors in the means-testing.

- In many countries, including Italy, Belgium, Denmark and Sweden, fees are meanstested based on family income. In some countries, including Denmark, childcare is free for those on the lowest incomes.
- Fees often change with each additional child. In Sweden, for instance, families pay three per cent of income for the first child, two per cent for the second and three per cent for the third.
- Fees tend to be less for older children, usually to reflect the different cost of providing childcare at different ages, in terms of regulations governing child to staff ratios.

• In France, for instance, the fee is related to both income and type of childcare used: lower-income families are eligible for lower centre-based costs and higher-income families for more affordable childminder care (ECGE 2009).

In addition, many countries place a cap on the total amount parents are expected to pay, either as a percentage of costs or a percentage of household income. The OECD data shows that high performers on maternal employment such as Denmark, Sweden and the Netherlands tend to have childcare costs at a maximum of approximately 10 per cent of net family income, and significantly lower for those on lower incomes and lone parents.

The evidence suggests that further reductions in the price faced by parents when childcare is already below this point has little impact on maternal employment. A Swedish reform that took place in 2002–2003 fixed the price of childcare as a percentage of household income and imposed an overall cap on the price faced by families. Before this, childcare costs averaged at around six per cent of net family income; after it they fell to 2.5 per cent. However, while this led to an increase in the number of children attending childcare, it did not have a significant impact on maternal employment rates (Lundin et al 2007). By comparison, a reform in Norway that saw the price fall from around 13 per cent of net income for low-income families to around 10 per cent, and from nine to seven per cent for those on medium incomes, increased the employment rate of mothers of undertwos by four percentage points (Hardoy and Schøne 2013).8

Based on the existing pattern of childcare costs and maternal employment across countries, and the available evidence, the UK should aim to reach childcare prices that are around 10 per cent of net family incomes in order to support maternal employment.

Hours of provision

While international evidence suggests that extending the early years entitlement below the age of three would have the largest impact on maternal employment, we also need to consider whether the amount of hours on offer universally at three and four and means-tested at age two, currently 15 hours for 38 weeks of the year, is enough.

Families differ greatly in how many hours of childcare they use. Couples where both are in work use a median of 19.5 hours of of formal childcare for children aged three to four and 15 hours for children aged up to two. Most use either five or three days (Huskinson et al 2013).

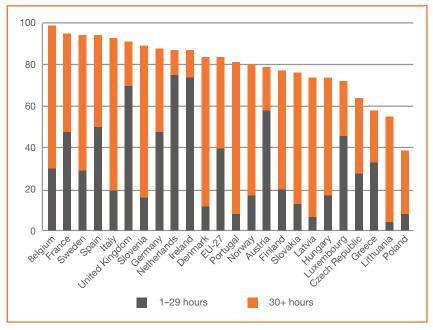
Mike Brewer and Claire Crawford find that for lone parents, the early years entitlement at three and four has an insignificant impact on maternal employment, compared to starting school. They find that when a lone parent's youngest child moves into full-time primary education, it induces an increase of 10–15 per cent in lone parents' employment (Brewer and Crawford 2011). They find much weaker evidence of an employment effect for lone parents when their child becomes eligible for a part-time nursery place. This that, at least for lone parents, the 15 hours provided by part-time nursery care may not be enough on its own to support more lone parents into work or to increase their working hours.

International examples of childcare reforms that have had a large positive impact on maternal employment are often characterised by full- or close to full-time hours of publicly-provided care. For instance, the expansion of universal free childcare to three-year-olds in Spain, which took place throughout the 1990s, provided full day (9am to 5pm)

⁸ It should be noted that the primary aim of both these policies was not to increase maternal employment but to expand the supply of available childcare.

care for five days a week and led to an eight per cent increase in maternal employment and a nine per cent increase in hours worked by mothers of three-year-olds (Nollenberger and Rodriguez-Planas 2012). Similarly, in Quebec the number of hours offered under the \$5 a day policy applied to full-day childcare (Baker et al 2005). In the Canadian province of Nova Scotia, a change from half-day to full-day kindergarten for five-year-olds saw a large and significant increase in maternal employment (Wilson 2012). The free entitlement of 15 hours in its current form has been hugely beneficial, but has been largely ineffective in supporting women into, or back into work.

Figure 4.3
Enrolment rate of children aged 3 to compulsory school age in part-time (1–29 hours) and full-time (30+hours) formal childcare in European countries



Source: Plantenga and Remery 2013

Broadly speaking, childcare systems that support high levels of maternal employment are also characterised by the fact that they provide at least 30 hours a week of subsidised childcare. Figure 4.3 shows that the UK is an outlier among European countries, alongside Ireland and the Netherlands, in that the majority of children enrolled in care attend for less than 30 hours a week. In Sweden average usage within the heavily subsidised system covering children aged up to five is 33 hours; in Norway preschool children aged between one and five spend an average of 35 hours a week in kindergarten, and even slightly younger children spend a substantial number of hours in childcare, averaging at 33 hours (Naumann et al 2013).

It should be noted that spending many hours in low-quality care can have a negative effect on child development (Parker 2013). This highlights the need to ensure that providers are rigorously assessed to ensure they meet a sufficient standard of quality, particularly if children are more likely to attend childcare full-time. The system of quality assessment in the UK, led by Ofsted, does not take account of many of the factors that determine quality of care in settings and requires reform (Mathers et al 2011). Any potential expansion in the proportion of young children attending childcare full-time makes this even more important.

There is also the issue of when these hours are in fact provided. In the UK most childcare is available during and around regular working hours, accommodating parents employed on a standard 9am to 5pm, Monday to Friday working week. Parents who work during evenings and weekends often have great difficulty finding any provision, and what does exist is also relatively expensive. Since the types of jobs that require atypical patterns of work are largely confined to the low-paying end of the labour market, including frontline retail, hospitality and care roles, this puts mothers working atypical hours at an additional disadvantage.

Overall, more than a quarter of working mothers report that working after 6pm causes problems with childcare. And a third of mothers report problems when they work before 8am. This is a particular issue for lone parents, 39 per cent of whom report problems with evening care, and 36 per cent with early morning care (Huskinson et al 2013). This has been linked to the employment patterns of lone parents, who are more likely to work shift patterns and other atypical hours (Singler 2011).

Very few providers are prepared to offer this type of care. One study has found that only one in 10 childminders would consider working late in the evening, and between three and four per cent would consider working overnight (Statham and Mooney 2003). Out of the provision that is available, although there is little data on the relative prices of care provided at different times, figures from one scheme in Southwark supplying childminding places at atypical hours suggests that it charges between $\mathfrak L1$ and $\mathfrak L2$ more per hour, because staff cost more at these hours. Other estimates from a scheme based in Bradford suggest the cost of providing out of hours care may be as high as $\mathfrak L18$ per hour (Singler 2011). Since the early years entitlement does not cover care provided before 7am or after 6pm, parents would be expected to meet the full costs too, implying substantially higher prices and by extension greater barriers to maternal employment.

But the available evidence suggests that atypical working patterns among mothers may also be driven by the fact that there is not enough childcare provision at regular hours either. Because they do not get full support to cover a standard working week, many parents have no choice but to work evenings and weekends, using shift parenting, grandparents or others informal care networks to cover the gaps. Indeed, it has been suggested that this may be one reason why particular industries, such as retail and hospitality, are able to operate outside regular working hours, as they have a readily available workforce consisting of parents and other groups willing to work shift patterns.

Erdal Tekin has looked at the impact of receiving a childcare subsidy on the employment of US single mothers, separating out mothers who were working during a standard 8am to 6pm working week from those working at evenings and weekends. He found that mothers are around six percentage points more likely to work standard hours if they receive a subsidy, and that this effect is even stronger, at 13 percentage points, for those who are also in receipt of welfare (so from lower-income families) (Tekin 2007). Jean Kimmel and Lisa Powell have found similar results among married mothers in the US; working in 'non-standard' working hours substantially reduces the likelihood of using formal centre or home-based care, although around half of mothers do still rely on some formal childcare (Kimmel and Powell 2006).

While providing more childcare during standard hours should help many mothers currently forced to work atypical shift patterns, it appears likely that the UK will still need to look at providing childcare outside these hours in order to facilitate the entry into

work of those mothers most likely to work atypical hours, particularly lone parents and parents with few qualifications and little professional experience.

The other aspect to this discussion is, clearly, the whole issue of flexibility in the labour market. The lack of flexible work often constrains work options. This is particularly the case for mothers with lower qualifications and those who have children at a younger age, who find it harder to secure good jobs and opportunities at work in the first place, and for whom the only options are to work full-time or not at all (they may not be able to afford to work less, or may be reluctant to ask for fewer hours in case they are perceived as less committed). At the same time, employers often demand flexibility of another kind from their workforce, requiring people to work outside regular hours whether or not they are paid overtime.

Flexible work opportunities are needed to provide women (and men) with more genuine choices regarding work and care. More high-quality, better paid part-time jobs are required in order to address increased flexibility at the bottom end of the labour market. This would be of particular benefit to lone parents and to parents with lower-level qualifications, who are often concentrated in part-time work. The quality and status of the jobs that women do must be raised by creating flexible job opportunities at all levels and in a range of sectors, and by supporting women (and men) to find those opportunities. Flexibility has to be seen from the perspective of childcare provision as well as employment opportunities.

5. IMPACTS ON FAMILY LIVING STANDARDS AND PUBLIC FINANCES

The analysis has shown that there is scope to increase the maternal employment rate in the UK to bring it more into line with other OECD countries.

Other than its positive impact on parental and child well-being, there are two key justifications for directing childcare policy to facilitate maternal employment. First, reducing the barriers to work for mothers of young children allows families to attain a higher standard of living. Among two-parent families with children, the risk of child poverty is four times higher in families where only one parent works than in families where both do (Lawton and Thompson 2013). In lone-parent families, the poverty risks are higher but employment still has a substantial effect; the risk of child poverty drops by around 50 per cent when the parent is in part-time work as opposed to out of work, and drops by nearly the same amount again (to 17 per cent) for lone parents working full-time (DWP 2013). Family poverty during the first years of a child's life has also been shown to affect child outcomes at later years (Schoon et al 2012). An increase in the employment rate of mothers is therefore likely to reduce rates of child poverty and be good for child development.

Second, increasing the rate of maternal employment and the level of full-time employment among mothers of young children has the potential to benefit the public finances. As mothers start and increase their earnings, they will claim fewer benefits, and generate extra revenues through income tax and national insurance contributions. Previous research by IPPR found that mothers returning to work full-time after maternity leave at a median income generate more than £34,000 over a four-year period in income tax and national insurance. Even after accounting for the fact that many mothers work fewer lower hours and at a lower earnings level than average, this produces a tax return of over £18,000 (Ben-Galim 2011a).

This chapter extends these findings, using original modelling evidence to set out the implications of a variety of scenarios of higher rates of maternal employment in the UK.

The modelling is carried out in two stages. First we calculate the probability that out-of-work mothers, with children aged less than five, transition into work. We derive these probabilities from the patterns of work transitions observed in the longitudinal Labour Force Survey from 2002 to 2012 (ONS 2013b). This tells us the likelihood that a mother will move into work, based on her individual and family-level characteristics such as educational attainment, number and age of children, disability status, ethnicity, age and region of residence. It also tells us what her predicted hourly wage and hours of work would be when she moves into employment. We carry out a similar exercise for the move from part to full-time work.

We then apply the results of this modelling to the out-of-work mothers in another dataset, the Family Resources Survey. This survey has a more complete record of individuals' income and benefit receipt, and can therefore be used to model the income and fiscal impacts of changes to employment status, hours of work and earnings. Based on their probability of transitioning, we move out-of-work mothers into work and assign them hours and earnings until we have reached a target employment rate for mothers of preschool children (ONS 2012).

By comparing the earnings, employment activity and change in benefit receipt in our higher maternal employment dataset to a baseline of current levels of maternal employment, we are able to calculate both living standards and fiscal impacts of each scenario. Again, we carry out a similar calculation for assessing the impact of transitions from part-time to full-time work.

It is important to note that we are not attempting to predict the likely impact of any increase in childcare support offered to families. The scenarios presented in this chapter focus on the potential impacts of a higher rate of maternal employment and of full-time maternal employment.

The scenarios we use are as follows; for employment we model the impact of increases in the maternal employment rate of one, three, five and ten percentage points. Our baseline rate is the 2010/11 level as observed in the Family Resources Survey which is approximately 57 per cent, meaning our scenarios cover a maternal employment rate of 58, 60, 62 and 67 per cent. None of these are unfeasible levels of employment for mothers of underfives compared to other OECD countries; a 67 per cent rate would put the UK among a group of above average countries including Canada and Belgium (for mothers of three- to five-year-olds). Similarly, an increase of up to five percentage points as a result of childcare policy is also feasible, given the experience of other countries following childcare reform. Although the Quebec reforms are something of an outlier, estimates of their impact found an increase in labour market participation of around eight percentage points overall (Lefebvre and Merrigan 2008, Lefebvre et al 2011, Baker et al 2005). Finally, the UK has experienced an increase in employment of a similar order for this group over the last two decades; since 1992 the employment rate has increased by 17 percentage points for mothers of children aged two and under, and by 11 percentage points for mothers of three- to four-year-olds (although progress has slowed since 2002), suggesting increases of up to 10 percentage points in the employment rate are not unfeasible over the medium to longer-term.

For the transition between part- and full-time work, we model the impact of increases of three, five, seven, 13 and 20 percentage points in the proportion of employed mothers of under-fives working full-time. Compared to the baseline present in the Family Resources Survey of 47 per cent, this results in 50, 52, 54, 60 and 67 per cent of employed mothers working full-time. Again this is broadly in line with the experience of other countries; data published by the OECD referring to mothers of children aged 14 and under in 26 countries (see chapter 3) shows that in over two-thirds of the surveyed countries fewer than 30 per cent of employed mothers work less than 30 hours. The UK, on the other hand, is a distinct outlier, alongside Germany, Austria and the Netherlands, with over 60 per cent working part-time. However, while the overall maternal employment rate for mothers of under-fives has increased over the last two decades, the proportion working part-time has increased since 1992. This is perhaps to be expected; although policy support for childcare use and affordability has greatly increased in recent years, it is still only partial, with families facing the highest net child care costs where they both work full-time.

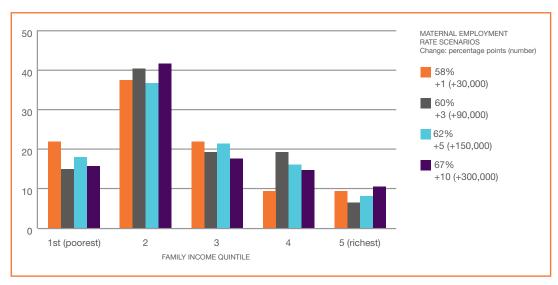
Family living standards

Maternal employment brings greater financial security and higher living standards to families. The current population of out-of-work mothers tend to be concentrated in families with lower incomes, and this is to be expected since they live in either workless or single earner families. This implies that supporting out-of-work mothers into employment through more affordable childcare would particularly benefit those families on lower incomes.

Figure 5.1 shows the results of four potential employment scenarios – an increase of the maternal employment rate among mothers of under-fives of one, three, five and 10 percentage points, equivalent to 30,000, 90,000, 150,000 and 300,000 extra mothers in work and maternal employment rates of 58, 60, 62 and 67 per cent respectively. It presents the distribution of mothers moving into work according to where they lie in the income distribution, from the first quintile (poorest) to the fifth quintile (richest). It shows that, for

example, if the maternal employment rate were to rise by five percentage points to 62 per cent, we would see the biggest impact of that rise from mothers in the second quintile, with over 50,000 mothers from that income group moving into work. Approximately 30,000 from the middle income quintile would move into work and around 20,000 of the poorest mothers would be working. Reflecting current patterns of maternal employment, around half of these mothers would be working part- time and some full-time.

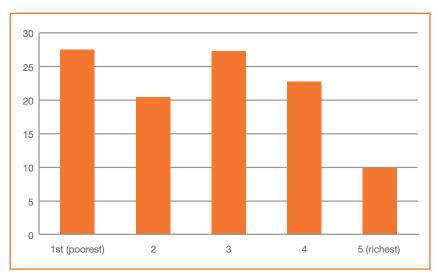
Figure 5.1
Income distribution of
maternal employment
rate scenarios by net
income quintile



Source: authors' calculations based on the ONS five-quarter longitudinal labour force survey (ONS 2013b) and the IPPR tax-benefit model

How much do these families benefit? Figure 5.2 illustrates this by comparing the average incomes of families with a mother moving into work before and after an increase in the overall maternal employment rate of five percentage points, by equivalised family income decile.

Figure 5.2
Average change in net family income among affected families as a result of a five percentage point increase in the maternal employment rate (%)

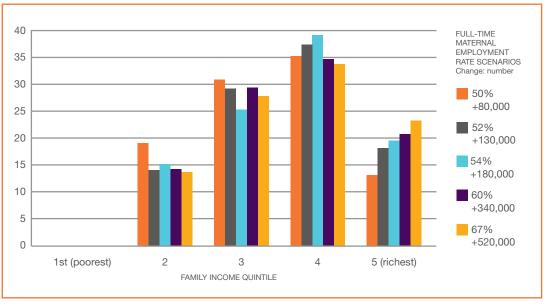


Source: authors' calculations based on the ONS five-quarter longitudinal labour force survey (ONS 2013b) and the IPPR tax-benefit model

At most points in the income distribution, families where a mother has moved into work will experience an increase in their income of 20 per cent or more (although this is lower for the richest 20 per cent of families). In general figure 5.2 shows that, as expected, increases in the maternal employment rate will have a larger impact as a percentage of income on those families with lower incomes. This pattern holds true when modelling other increases to the maternal employment rate.

Turning to the impact on family living standards of higher rates of full-time working among mothers who are already in employment, figure 5.3 shows the distribution of mothers moving into full-time from part-time work under our scenarios. It shows that the majority of mothers moving into full-time work in our modelling are located in the third and fourth quintiles of the income distribution. In exploring the transition from part-time to full-time employment in more detail we also see big shifts in these same income quintiles. So for example, if the employment rate for mothers from part-time to full-time work increased by five percentage points, we would see over a third of that increase, or around 45,000 mothers, from the fourth quintile moving into full-time work; while 30 per cent of the increase, almost 40,000 mothers, would be from the middle quintile. This largely reflects where in the income distribution working mothers lie, with very few in the bottom quintile of income. Shifts from part-time to full-time work will benefit mothers who are already in work.

Figure 5.3
Income distribution
of full-time maternal
employment rate
scenarios by net income
quintile

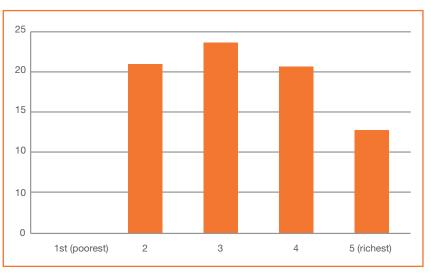


Source: authors' calculations based on the ONS five-quarter longitudinal labour force survey (ONS 2013b) and the IPPR tax-banefit model

Figure 5.4 (over) presents the change in income for affected families after a five percentage point increase in the share of employed mothers working full-time, expressed as a proportion of family income. Figures for the first decile are not shown, because the sample size was not big enough, but the indication is still clear; affected families gain a boost in family incomes of over 20 per cent on average. The impact is slightly smaller for families at the top of the income distribution.

Figure 5.4

Average change in net family income by family income quintile as a result of higher rates of full-time working among mothers (percentage of income)



Source: authors' calculations based on the ONS five-quarter longitudinal labour force survey (ONS 2013b) and the IPPR tax-benefit model

The fiscal impacts

Aside from the impact on family earnings, we also calculate the impact of higher employment scenarios at a national level on tax revenues and benefit expenditure.

Table 5.1
The fiscal impact of higher maternal employment per year (£m)

	Change in maternal employment rate – percentage points (number)				
	+1 (+30,000)	+3 (+90,000)	+5 (+150,000)	+10 (+300,000)	
Change in direct tax revenue	50	150	300	500	
Change in benefit expenditure	-150	-300	-450	-950	
Net change	200	450	750	1,450	

Source: authors' calculations based on the ONS five-quarter longitudinal labour force survey (ONS 2013) and the IPPR taxbenefit model

Note: Results are rounded to the nearest £50 million.

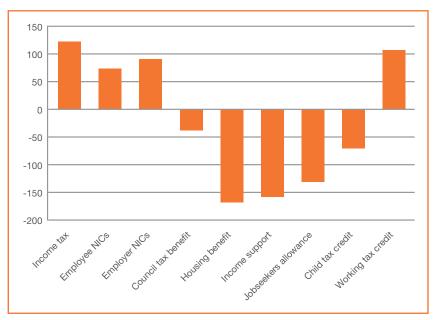
Table 5.1 shows the impact on the overall public finances over a single year of increasing the employment of mothers with children under five, on tax revenue and benefit expenditure. It shows that even a small increase in maternal employment of one percentage point is likely to have a net positive impact on the public finances of around $\mathfrak{L}200$ million. This rises steadily as the size of the employment increase rises – increasing maternal employment rates by 10 percentage points would be associated with a $\mathfrak{L}1.45$ billion positive impact on the public finances.

What is driving these savings? Figure 5.5 (over) breaks down the results for a five per cent increase in maternal employment into the different areas of tax and benefits savings. We use five per cent because much of the literature calculates that more affordable childcare would produce an increase of around this size. The Quebec reforms, for instance, were found to have increased maternal employment by eight per cent (Baker et al 2005).

It shows that the largest savings come from reduced spending on housing benefit (as rising incomes take people out of the bracket where they are eligible for this) and reduced spending on income support and contributory job seeker's allowance, which are primarily targeted at those out of work. On the other hand, the drop in child tax credit spending is more than replaced by spending on working tax credit. Child tax credit is available to

those who are not working, but is withdrawn quickly as families increase their earnings through working more. Working tax credit, on the other hand, is only available to families where all parents work, and so many of the mothers moving into work in our modelling will find they become eligible for working tax credit, leading to the increase seen in figure 5.5. While the national roll-out of universal credit may change this picture, it is still likely that many mothers moving into work will continue claiming at a reduced amount, they just wont switch benefits as they do currently.

Figure 5.5
Breakdown of benefit savings from a five per cent increase in maternal employment rate (£m)



Source: authors' calculations based on the ONS five-quarter longitudinal labour force survey (ONS 2013b) and the IPPR tax-benefit model

The other large positive fiscal impacts in figure 5.5 come primarily from increased revenue through income tax and employee and employer national insurance contributions. These generate a substantial return as mothers move into work and begin to pay income tax and national insurance on their earnings.

The fiscal impact of higher rates of full-time work among mothers of young children (table 5.2) is similar.

Table 5.2
The fiscal impact of higher maternal employment per year (£m)

	Change in proportion of working mothers employed full-time – percentage points (number)					
	+3 (+80,000)	+5 (+130,000)	+7 (+180,000)	+13 (+340,000)	+20 (+520,000)	
Change in direct tax revenue	400	600	700	1,200	2,200	
Change in benefit spending	-50	-100	-200	-300	-400	
Net change	450	700	900	1,500	2,600	

Source: authors' calculations based on the ONS five-quarter longitudinal labour force survey (ONS 2013) and the IPPR taxbenefit model

Note: Results are rounded to the nearest £50 million.

Increasing the rate of full-time work among mothers who are already working brings about substantial savings to benefit expenditure and increased tax revenue. A rise of

three percentage points generates a net positive fiscal impact of £450 million, broadly in line with the impact of maternal employment.

The balance between the two is slightly different in this case, however, with more of the savings coming from higher tax revenues as opposed to benefit spending. This is to be expected, since these mothers were already in work - and therefore less likely to be claiming benefits of various types, and are also already paying income tax. In the previous findings, some mothers move into work but do not earn enough to start paying income tax, whereas a move from part to full-time work is likely to bring in tax revenue on each extra pound earned, generating a larger tax gain.

Conclusion

The evidence presented in this chapter suggests that supporting workless mothers into employment and encouraging a greater level of full-time employment among working mothers would improve living standards and have a substantial fiscal impact, but that the exact nature of this increase varies in different cases.

Supporting mothers who are already in work to increase their hours generates a large positive fiscal impact, as families move out of the means-tested benefit system and pay income tax and national insurance on the majority of their extra income. Our modelling shows that a rise of five percentage points in the proportion of working mothers employed full-time generates a net positive fiscal impact of approximately £750 million a year. It also improves living standards, but principally for higher-income families; low-income families, who are less likely to have a mother in work, would see little change. Less than 20 per cent of the families experiencing an increase in their incomes are found in the bottom two quintiles of the income distribution.

By contrast, the impact on living standards of increasing the overall maternal employment rate is more evenly distributed, as many of the mothers who are currently without work live in low-income families and households. This means that almost two-thirds of the families that gain income are located in the bottom two-fifths of the income distribution. However, because existing maternal transition patterns tend to imply mothers move into part-time work, their extra earnings are often low, so that they move from the out-of-work benefit system into means-tested in work benefit. Still, a rise of five percentage points in the maternal employment rate would generate a net positive fiscal impact of approximately £750 million, in line with a similarly sized increase in full-time employment among mothers.

While increasing the employment rate of mothers and increasing full-time employment among mothers are not mutually exclusive policy goals, they do suggest a different emphasis for childcare and early years policy. For instance, the first goal is more likely to be achieved by extending the current provision to all parents of two-year-olds, and the second by increasing the number of hours of the early years entitlement to the parents of three- and four-year-olds.

6. POLICY IMPLICATIONS

This paper has reviewed and presented evidence that affordable childcare can help to boost maternal employment rates. It has highlighted the fact that the UK has relatively low maternal employment rates, identified particular groups where there is significant scope to raise employment and established that this is broadly in line with mothers' preferences.

The analysis suggests that the priorities should be to:

- expand affordable childcare for mothers with children aged up to two, for low-skilled and for lone parents, which should help both to close the gender pay gap and to increase household living standards
- expand affordable childcare to parents of three- and four-year-olds and families where mothers are already in work, which would allow mothers to increase their working hours
- move towards a system that is supply funded and costs families approximately 10 per cent of their disposable income.

The research has also shown that as well as the household gains, there are significant fiscal benefits from raising the maternal employment rate, as the result both of both benefit savings and of increased tax revenues. A 10 per cent increase, bringing the UK into line with the higher-performing Scandinavian countries, could generate an additional £1.45 billion annually to invest in high quality early years provision. This should be the long term ambition.

A more realistic goal for the next parliament as the economy picks up is a five per cent increase. This could result in £750 million to invest annually and would place the UK close to the average of OECD economies. But as with many policy challenges, this is no easy task. Significant reforms will be necessary if mothers are to be able to work, and if childcare costs are to be made more affordable.

As outlined earlier, the government plans to extend tax-free childcare and invest further in the childcare element of universal credit to so that more parents are able to afford it. These policy changes are likely to affect maternal employment rates.

Universal credit

There are two key ways in which universal credit may affect childcare costs. First, the additional support announced in the 2013 budget, raising the proportion of childcare costs eligible to 85 per cent, does not extend to families on the lowest wages where not all adults pay income tax. The Resolution Foundation estimates that although 600,000 of families on universal credit will qualify for the new level of support, 900,000 of families with children will not do so (Cory 2013).

At the same time, this is compounded by the termination of the childcare cost disregard in the means test for housing and council tax benefits, which saw those on the lowest incomes able to recover up to 95.5 per cent of their childcare costs (Children's Society 2013). In addition, because eligibility for universal credit is determined on a month by month basis, there is a danger that families where one or both parents have variable hours of work will fall beneath the income tax threshold temporarily and lose out on the extra support.

The government should therefore either share the increase in support equally between universal credit claimants; either by reducing the amount which may be provided but extending it to people who are not paying income tax, or by funding a similar 85 per cent offer to those not paying tax, which could potentially be financed by reducing the support offered to higher earners under tax-free childcare.

Tax-free childcare

The proposed move from an employer-led voucher system to a universal one where eligibility is determined at the family level is welcome. It will make the tax relief system available to a greater number of employees and to people who are self-employed.

Clearly, having two separate funding systems threatens to generate perverse cliff edges as parents move out of universal credit and into eligibility for tax-free childcare. The danger is that families at the top end of the means test for universal credit, where 85 per cent of childcare costs are covered, face a disincentive to increase the hours they work, or to move up a pay grade that would shift them into the bracket where 20 per cent of childcare costs are tax-free. Over the medium term, we should look to integrate the two systems.

International examples, particularly from Australia, also suggest that investing heavily in demand-led funding directly to parents may not lead to lower costs either for parents or for the government. Through the late 1990s, there was a much-needed increase in the supply of places, but public expenditure rocketed beyond policymakers' expectations (from \$500 million AUD (£278 million) in 1996 to \$3.3 billion AUD in 2008), as did costs for parents. Between 1996 and 2007, childcare cost inflation ballooned by over 100 per cent, compared to a rise in general inflation of 27 per cent over the same period (Cooke and Henehan 2012). And in 2008 when the childcare rebate was extended to cover 50 per cent of all remaining costs (from 30 per cent), prices continued to rise by 10 per cent, as many providers saw it as an open invitation to raise their fees. This example, combined with the analysis showing that tax-free childcare on its own does not seem likely to make childcare more affordable, is worrying (Ben-Galim 2013). The government has not outlined proposals of how it might regulate the market or control prices, which makes a demand-led strategy unstable even with significant public investment.

Supply-funded affordability

Supply-funded systems that offer direct childcare provision or direct payments to childcare providers tend to be more effective than demand-led systems in achieving lower net childcare costs compared to their total expenditure, and at ensuring high quality provision (Cooke and Henehan 2012). Many of these systems provide at least part of the entitlement free, with a cap on costs for any additional expenditure to ensure fairness. These are also the countries where maternal employment rates are highest.

The research has indicated that there is a tipping point – an amount that balances work incentives for mothers with childcare affordability – of about 10 per cent of family disposable income. This should be the goal in reforming tax credits and vouchers: there needs to be a mechanism for capping costs at this amount. This may have to be done in stages, and providers may need measures which ensure some kind of stability in the transition; but it should remain the target.

The free entitlement also needs to be more flexible. At the moment, even though it is open to all children aged three and four, the free entitlement is still not supporting maternal employment very strongly. Local authorities and providers need to do more to enable mothers to use their entitlement more flexibly - for example, using it to cover a couple of longer days rather than short daily sessions. This is particularly important for those mothers at the margins of employment.

On top of this there are other barriers such as the lack of flexible work and the gendered nature of parental leave need to be considered (Ben-Galim and Thompson 2013). Tackling these could benefit all workers, but particularly women.

There are too many mothers missing from work, and in large part this is because of the lack of affordable childcare. This is not an easy challenge to solve, but the benefits to children, families and society could be transformational.

REFERENCES

- Alakeson V (2012) *The price of motherhood: women and part-time work,* London: Resolution Foundation
- Alakeson V and Hurrell A (2012) Counting the costs of childcare, London: Resolution Foundation
- Alakeson V, Hurrell A and Whittaker M (2013) Resolution Foundation analysis of the 2013 budget, London: Resolution Foundation
- Baker M, Gruber J and Milligan K (2005) 'Universal childcare, maternal labor supply and family well-being', National Bureau of Economic Research working paper no 11832, Cambridge
- Ben-Galim D (2011a) *Making the case for universal childcare*, London: IPPR. http://ippr.org/publications/55/8382/making-the-case-for-universal-childcare
- Ben-Galim D (2011b) *Parents at the centre*, London: IPPR. http://ippr.org/publication/55/1835/parents-at-the-centre
- Ben-Galim D (2013) 'Government's childcare tax relief plans are regressive and won't help hard working families', Daily Telegraph, 4 December 2013. http://www.telegraph.co.uk/women/mother-tongue/10492109/IPPR-Governments-childcare-tax-relief-plans-are-regressive-and-wont-help-hard-working-families.html
- Ben-Galim D and Thompson S (2013) Who's breadwinning? Working mothers and the new face of family support, London: IPPR. http://www.ippr.org/publication/55/11082/whos-breadwinning-working-mothers-and-the-new-face-of-family-support
- Bettendorf L, Jongen E and Muller P (2012) 'Childcare subsidies and labour supply: evidence from a large Dutch reform', CPB discussion paper no 217, The Hague: CPB Netherlands Bureau for Economic Policy Analysis
- Bick A (2010) 'The quantitative role of child care for female labor force participation and fertility', MPRA paper no 25474, Munich: University Library of Munich
- Borg I and Stocks A (2013) 'A survey of childcare and work decisions among families with children', working paper no 114, London: Department for Work and Pensions
- Brewer M and Crawford C (2010) 'Starting school and leaving welfare: the impact of public education on lone parents' welfare receipt', Centre for the Economics of Education discussion paper no 121, London
- Brewer M and Paull G (2006) 'Newborns and new schools: critical times in women's employment', research report no 308, London: Department for Work and Pensions
- Broeckmann I, Misra J and Budig M (2013) 'Mothers' employment in wealthy countries: how do cultural and institutional factors shape the motherhood employment and working hours gap?', Luxembourg Income Study working paper series no 594, Luxembourg. http://www.lisdatacenter.org/wps/liswps/594.pdf
- Budig M, Misra J and Broeckmann I (2012) 'The motherhood penalty in cross-national perspective: the importance of work-family policies and cultural attitudes', *Social Politics*, 19(2): 163–193
- Chanfreau J, Gowland S, Lancaster Z, Poole E, Tipping S and Toomse M (2011) 'Maternity and Paternity Rights and Women Returners Survey 2009/10', research report no 77, London: Department for Work and Pensions. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/214367/rrep777.pdf
- Children's Society (2013) The Parent Trap: childcare cuts under universal credit, London

- Connolly S, O'Brien M, Aldrich M, Speight S and Poole E (2013) 'Trends in fathers' work-family arrangements and working hours (2001-2011)', slides presented at Nuffield Foundation seminar 'Family structure, labour market participation and wellbeing', 17 January 2014. http://www.modernfatherhood.org/publications/trends-in-fathers-work-family-arrangements-and-working-hours-2001-2011/
- Cooke G and Henehan K (2012) Double Dutch: the case against deregulation and demand-led funding in childcare, London: IPPR
- Cory G (2013) All work and no pay: second earners' work incentives and childcare costs under Universal Credit, London: Resolution Foundation
- Davey C (2013) HMT consultation: Tax-free childcare: consultation on design and operation, London: Gingerbread. http://www.gingerbread.org.uk/content/676/Consultation-responses---childcare
- Del Boca D, Pasqua S and Pronzato C (2009) 'Motherhood and market work decisions in institutional context: a European perspective', *Oxford Economic Papers*, 61 (supplement1): i147–i171
- Duffy B and Clemence M (2013) 'An age of change' in *Understanding society: generations*, London: Ipsos MORI Social Research Institute
- Department for Work and Pensions [DWP] (2013) Households below average income (HBAI): 1994/95 to 2011/12, London
- European Commission's Expert Group on Gender and Employment Issues [ECGE] (2009) The provision of childcare services: a comparative review of 30 European countries, Luxembourg
- Eliason S, Stryker R and Tranby E (2008) 'The welfare state, family policies and women's labour force participation: combining fuzzy-set and statistical methods to access causal relations and estimate causal effects' in Hicks A and Kenworthy L (eds) *Method and substance in macrocomparative analysis*, Basingstoke: Palgrave Macmillan
- Family and Childcare Trust (2013) *Childcare Costs Survey 2013*, London. http://www.daycaretrust.org.uk/data/files/2014/Childcare_Costs_Survey_FCT_2013_FINAL.pdf
- Fitzpatrick M (2010) 'Preschoolers enrolled and mothers at work? The effects of universal prekindergarten', *Journal of Labor Economics*, 28(1): 51–85
- Fitzpatrick M (2012) 'Revising our thinking about the relationship between maternal labor supply and preschool', *Journal of Human Resources*, 47(3): 583–612
- Gelbach J (2002) 'Public schooling for young children and maternal labor supply', American Economic Review, 92(1): 307–322
- Goux D and Maurin E (2010) 'Public school availability for two-year olds and mothers' labour supply', *Labour Economics*, 17(6): 951–962
- Harkness S (2012) The Influence of Employment on Depression: A Study of British Single and Partnered Mothers, Bath: University of Bath
- Harkness S and Skipp A (2013) *Lone Mothers, Depression and Work*, London: Nuffield Foundation
- Hardoy I and Schøne P (2013) Enticing even higher female labor supply: the impact of cheaper childcare, Oslo: Institute for Social Research
- Heim B (2007) 'The incredible shrinking elasticities: Married female labor supply 1978–2002', *Journal of Human Resources*, 42(4): 881–918

- Hicks A and Kenworthy L (2008) 'Family policies and women's employment: a regression analysis', in Hicks A and Kenworthy L (eds) *Method and substance in macrocomparative analysis*, Basingstoke: Palgrave Macmillan
- HM Treasury (2013) Tax-Free Childcare: consultation on design and operation, London
- Huskinson T, Pye J, Medien K, Dobie S, Ferguson C, Gardner C, Gilby N, Littlewood M and D'Souza J (2013) *Childcare and early years survey of parents: 2011*, London: Department for Education. https://www.gov.uk/government/publications/childcare-and-early-years-survey-of-parents-2011
- Immervoll H and Barber D (2006) 'Can parents afford to work? Childcare costs, tax-benefit policies and work incentives', Institute for the Study of Labor discussion paper no 193, Bonn
- Kennedy S, Gheera M, Gillie C and Seely A (2012) 'Government support for childcare since 1997', Commons Library Standard Note SN06382, London: House of Commons Library
- Kimmel J and Powell L (2006) 'Nonstandard work and child care choices of married mothers', Eastern Economic Journal, 32(3): 397–419
- Korpi W, Ferrarini T and Englund S (2013) 'Women's opportunities under different family policy constellations: gender, class and inequality trade-offs in Western countries reexamined', *Social Policy*, 20(1): 1–40
- Lanning T, Gottfried G, Darlington R and Bradley L (2013) *Great expectations:* exploring the promises of gender equality, London: IPPR. http://www.ippr.org/publication/55/10562/great-expectations-exploring-the-promises-of-gender-equality
- Lawton K and Thompson S (2013) *Tackling in-work poverty by supporting dual-earning families*, York: Joseph Rowntree Foundation
- Lefebvre P and Merrigan P (2008) 'Child-care policy and the labor supply of mothers with young children: a natural experiment from Canada', *Journal of Labor Economics*, 26(3): 519–548
- Lefebvre P, Merrigan P and Roy-Desrosiers F (2011) 'Quebec's childcare universal low fees policy 10 years after: effects, costs and benefits', Centre Interuniversitaire sur le Risque, les Politiques Economiques et l'Emploi working paper 11–01, Montreal
- Lundin D, Mörk E and Öckert B (2007) 'Do reduced child care prices make parents work more?', IFAU working paper 2007:2, Uppsala: Institute for Labour Market Policy Evaluation
- Manning A and Petrongolo B (2005) 'The part-time pay penalty', Centre for Economic Performance discussion paper no 679, London: London School of Economics
- Napari S (2010) 'Is there a motherhood wage penalty in the Finnish private sector?', *Labour*, 24(1): 55–73
- Naumann I, McLean C, Koslowski A, Tisdall K and Lloyd E (2013) *Early childhood* education and care provision: international review of policy, delivery and funding, Edinburgh: Scottish Government
- Nollenberger N and Rodriguez-Planas N (2012) 'Child care, maternal employment and persistence: a natural experiment from Spain', Institute for the Study of Labor discussion paper no 5888, Bonn

- Organisation for Economic Co-operation and Development [OECD] (2012), Family Database, Paris. http://www.oecd.org/social/soc/oecdfamilydatabase.htm
- Office for National Statistics [ONS] (2012) Family Resources Survey, 2010–2011 dataset, Colchester: UK Data Archive
- Office for National Statistics [ONS] (2013a) Quarterly Labour Force Survey, Household dataset, various years, Colchester: UK Data Archive.
- Office for National Statistics [ONS] (2013b) Labour Force Survey, Five-Quarter Longitudinal dataset, various years, Colchester: UK Data Archive
- Parker I (2013) Early Developments: Bridging the gap between evidence and policy in early-years education, London: IPPR
- Pettit B and Hook J (2005) 'The structure of women's employment in comparative perspective', *Social Forces*, 84(2): 779–801
- Plantenga J and Remery C (2013) Childcare services for school age children: a comparative review of 33 countries, Luxembourg: European Commission's Expert Group on Gender and Employment Issues
- Richardson L (2012) 'Can parents afford to work? An update', presentation to the European Population Conference 2012, Stockholm, 13–16 June 2012
- Schlosser A (2011) Public preschool and the labor supply of Arab mothers: evidence from a natural experiment, Tel Aviv: Tel Aviv University
- Schmuecker K (2013) Response to HM Treasury Consultation. Tax-Free Childcare: Consultation on design and operation, York: Joseph Rowntree Foundation. http://www.jrf.org.uk/sites/files/jrf/Response.pdf
- Schoon I, Jones E, Cheng H and Maughan B (2012) 'Family hardship, family instability and cognitive development', *Journal of Epidemiology*, 66(8): 716–722
- Seely A (2013) 'Tax relief for childcare', Commons Library Standard Note SN00019, London: House of Commons
- Simonsen M (2010) 'Price of high quality day care and female employment', Scandinavian Journal of Economics, 112(3): 570–594
- Singler R (2011) Open all hours? Flexible childcare in the 24/7 era, London: Daycare Trust
- Staff J and Mortimer J (2012) 'Explaining the motherhood wage penalty during the early occupational career', *Demography*, 49(1):1-21
- Statham J and Mooney A (2003) *Around the clock: childcare services at atypical times*, Bristol: Policy Press
- Statistics Netherlands (2012) 'Child care costs averages 2,000 euro for Dutch parents', Statistics Netherlands website, 7 January 2013. http://www.cbs.nl/en-GB/menu/themas/inkomen-bestedingen/publicaties/artikelen/archief/2013/2013-3764-wm.htm
- Steiber N and Haas B (2009) 'Ideals or compromises? The attitude-behaviour relationship in mothers' employment', *Socio-Economic Review*, 7(4): 639–668
- Steiber N and Haas B (2012) 'State of the art: advances in explaining women's employment patterns', Socio-Economic Review, 10(2): 343–367
- Tekin E (2007) 'Single mothers working at night: standard work, child care subsidies and implications for welfare reform', National Bureau of Economic Research working paper no 10274, Cambridge

Uunk W, Kalmijn M and Muffels R (2005) 'The impact of young children on women's labour supply: a reassessment of institutional effects in Europe', *Acta Sociologica*, 48(1): 41–62

Wilson T (2012) Did full-day kindergarten policy changes in the Maritime provinces in the 1990s change maternal labour force participation?, Ottawa: University of Ottawa