High-quality formal childcare improves children’s development and helps parents stay in work. However, it remains unaffordable for many families, and this situation is set to worsen in the years ahead.

Due to the state of the public finances, the government is unable or unwilling to spend more money to help parents with the considerable costs of childcare. But there are other things government can do to help parents with the burden. A creative solution is needed.

This paper proposes an entirely new policy - a National Childcare Contribution Scheme – to help parents manage the high costs of childcare over a number of years. In straightened times, this innovative proposal offers the only route to the universal, high-quality childcare service Britain desperately needs.
A BETTER BEGINNING
Easing the cost of childcare

Ryan Shorthouse, Jeff Masters and Ian Mulheirn

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EXECUTIVE SUMMARY

This report describes a plan to help make formal childcare a modern, mature public service, which is affordable for all families, high in quality and flexible to the needs of parents.

We propose an innovative, pragmatic policy which is costless to the exchequer, called the National Childcare Contribution Scheme (NCCS). Under this scheme, working parents will be given financial support from government to help them smooth the costs of childcare. This financial support is then recovered from parents through income-contingent contributions from future income.

It is not an alternative, but a complement, to other existing public support. This idea, if adopted by government, provides a credible route for what is urgently needed in the UK to improve life chances, raise education standards and drive economic growth: namely, making formal childcare an established and appropriately funded part of Britain’s education system.

The affordability of formal childcare

At the moment, formal childcare is punishingly expensive for British families. Compared to other OECD countries, the UK is in fact relatively generous in supporting parents with their childcare costs. But still, as the ticket price for a childcare place in the UK is high, the contribution parents make from their own pocket is great compared with parents in similar countries.

For the past several years this private contribution for childcare has grown and will grow in the years ahead for families on all points on the income scale. This is because the public support available has declined, and is declining, as childcare costs continue to rise. The SMF has forecast that a low-income family is likely to contribute 62% more
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– or £600 in today’s money – for typical childcare costs in 2015-16 compared to in 2006-07.  

For many parents – mothers in particular – the cost of childcare is too high, and it often makes paid employment financially unviable. In the summer of 2011, following the Coalition Government’s cut in support through the childcare element of the Working Tax Credit, a quarter of parents living in severe poverty reported that they had given up their job because the costs of childcare were too expensive. 

This is deeply worrying. Closer attachment to the labour market is associated with higher well-being and earnings in the short- and long-term, reducing a family’s susceptibility to poverty. If unaffordable childcare causes some parents to choose to leave the workplace, the costs for them are high in the long-term: it is estimated that mothers face a pay penalty of 3.4% for each year spent out of the labour market relative to a similar person who stays in work.

For children, a wealth of US and UK evidence also shows that formal childcare at an appropriate age improves educational attainment. Indeed, the early years of a child’s life is when the brain develops the most, and is most malleable, meaning it is a critical period for improving cognitive ability. The infamous attainment gap between rich and poor children opens up very early, and widens as children get older, ultimately entrenching social privilege. Since childcare boosts educational development, it plays an important role in mitigating the negative effects associated with being born in a poor household.

2 Daycare Trust and Save the Children, Making work pay – the childcare trap (Daycare Trust: London, 2011), 1.
3 Wendy Olsen and Sylvia Walby, Modelling gender pay gaps (Manchester: Equal Opportunities Commission, 2004), 16.
As well as clear private gains for both parents and children, formal childcare brings significant public benefits: greater revenue for government from increased employment and reduced benefit claims. In the long-term, there is evidence that it can lead to less criminality, as well as higher human capital and increased female labour market participation, all of which enhance economic growth and prosperity. Therefore, supporting parents to access formal childcare is a rarity in public policy as it achieves both greater equity and efficiency.

Despite these advantages, formal childcare remains the only part of the education system which is not free at the point of use and remains out-of-reach for a sizeable minority of families. The SMF commissioned YouGov to poll 502 representative parents with children under the age of five for this report. It was found that 45% of parents find it difficult to pay for the costs of childcare. In the Government’s repeat study of parents, 10% say they simply do not use childcare because of the costs.4

The unaffordability of formal childcare means that its take-up is below what might be thought of as an optimal level for children, parents and society. Families in the UK use formal childcare much less than their counterparts in comparable European countries, and children from the most deprived backgrounds are much less likely to access it. Many parents have to rely on informal childcare – especially grandparents – which, on average, for children from more deprived families, is not as advantageous for child development.

Problems with the childcare market
The unaffordability of childcare remains at the heart of some of the other failures of the childcare market. Childcare settings operate in

4 Ruth Smith, Eloise Poole, Jane Perry, Ivanne Wollny, Alice Reeves, Cathy Coshall, John d’Souza, Caroline Bryson, Childcare and early years survey of parents 2009 (London: Department for Education, 2010), 99.
very localised, segmented markets, with demand vulnerable and often unsustainable. Coupled with the fact that providers face tight regulations on staff-to-child ratios, profitability is low. Childcare providers, consequently, find it difficult to invest in improved quality and flexibility, and to sustain provision, which also leads to low usage by families.

The SMF’s polling asked parents about any problems that existed with childcare in their local area: 55% thought childcare was too expensive, 29% thought it was not flexible enough to meet people’s working hours and 12% thought it was poor quality. There have been real improvements over the past decade in the quality, flexibility and sustainability of childcare. But it is telling that 68% of parents report that there is some type of problem with childcare in their local area.

The solution
The solution is to improve the affordability of childcare. Doing so would unleash demand and provide more revenue for childcare providers to deliver a more responsive, high-quality service. One option is to increase public funding. There is a strong case for this considering the eventual economic returns to the exchequer. As the SMF quantified some years ago, a universal, publicly-funded childcare service would more than pay for itself in the long-run.5

But the admirable aspiration of a universal, publicly-funded childcare service has not materialised, nor will it in the foreseeable future because of the state of the public finances. A bold, radical alternative policy is needed instead.

The unaffordability of childcare is not just determined by the high prices. Given the financial benefits associated with labour

market attachment, parents may be willing to pay high prices but lack sufficient cash to pay up-front. So while the government is in no position to use public money to further subsidise parents, it could help them by easing the credit constraints.

This could be achieved by helping parents to smooth their private childcare expenditure over a long period of time, so they pay gradually and when they have benefited from close attachment to the labour market. This cost smoothing – commonly adopted by families to afford expensive goods and invest in themselves – can be facilitated by government.

The student finance system operates on a similar basis, enabling people to attend university in spite of high tuition fees. They do not pay for their tuition fees at the point of use and all in one go, but through subsequent income-contingent contributions when graduating and earning above a certain income threshold. Evidence from higher education suggests that when people recognise the long-term benefits of a service, the availability of cheap finance sustains demand even when costs rise substantially.

Learning in part from the student finance model, this paper advocates that parents should be able to access a National Childcare Contribution Scheme (NCCS) – which is complementary to existing public support – to help them pay their childcare costs. Working parents who opt in to this voluntary scheme will be able to receive financial support from government which they subsequently pay from their salary each month when they are earning above a certain income threshold.

This income contingent contributions system has the attributes of a tax in that payments are due only on the same basis as income tax. The NCCS also resembles a loan scheme in that payments are linked to the amount of support drawn down.
As a consequence of this hybrid structure, and a 20 year limit on contributions, lower-earning parents may not pay back in full what they initially received.

Instead of paying significant childcare costs all at once, hurting household income or instead leading to people not using formal childcare, this scheme will enable parents to make more manageable, modest contributions each month. It will also unleash latent demand for childcare, bolstering revenue to the sector, which will be invaluable for expansion, sustainability and investment in quality and flexibility.

**Designing a viable scheme**

To make it viable, the scheme needs to achieve three key aims:

- **Fiscal neutrality.** The scheme must not create additional costs for government.
- **Progressivity.** Parents on higher incomes should pay more than parents on lower incomes through the NCCS.
- **Optimal take-up.** Take-up of formal childcare is currently sub-optimal from a public and private perspective. The ultimate objective is to increase consumption of high-quality formal childcare.

To achieve these aims, this report outlines viable parameters for the NCCS with regard to eligibility for the scheme, distribution of the support and the subsequent contributions of parents. It sets out what the scheme will look like for a family: who is eligible; how much support they can access, and how would they receive it; and the nature and rate of their subsequent contributions.

If parents only contribute when they are earning above a certain income, and for a fixed number of years, there will be some parents who do not contribute as much as they initially received. More broadly, while public finance is cheap, the
government’s cost of finance will also be significant. This shortfall has to be made up from elsewhere in the scheme to ensure fiscal neutrality. This could be done by applying an interest rate to the support drawn down by scheme users. Limiting access to the scheme to working parents, and placing a cap on the maximum amount of support for each family, would ensure that the vast majority of parents would contribute in full, minimising the required interest rate.

Financial support to parents will be offered through a voucher system, where parents pay using a smart card, to ensure that the money is ultimately paid to providers. This closed loop system will eliminate leakage of funding and reduce administrative costs.

Using the Family Resources Survey, a nationally representative household survey, we sought to model the scheme take-up and contributions for a cohort of eligible families. The aim was to establish a set of parameters for the NCCS that achieved the three key aims of fiscal neutrality, progressivity and optimal take-up. In view of the trade-offs involved, the following structure was found to satisfy the aims for the scheme.

**Eligibility**
- **Household eligibility**: all parents working with a child under school-age where the main earner is on £12,000 or more (equivalent to full-time work at the minimum wage)
- **Maximum support**: Capped at £10,000 per family in total
- **Settings**: High-quality formal childcare providers only

**Distribution**
- **Form of payment**: Voucher system where parents pay providers using a smart card
- **Liability**: Higher earning partner is responsible for subsequent contributions
**Contributions**

- **Contribution income threshold**: the level of the personal allowance, £8,105 (2012-13)
- **Contribution rate**: A contribution rate of 6% of the main earner’s gross income above the income tax personal allowance
- **Interest rate**: An interest rate of 3% above inflation applied to the amount drawn down by parents
- **Maximum contribution period**: 20 years, after which any outstanding amount owed is forgiven.

**What do parent make of the idea?**

Having designed a viable scheme on paper, we sought to explore the attitude of parents to the idea. Working with YouGov, we polled a representative sample of 502 parents with a child under five years old. The results showed that many parents favour a scheme of this nature and that more than a quarter of parents would use the NCCS if it were available.

The polling found that:

- 57% of parents who expressed an opinion thought the National Childcare Contribution Scheme (NCCS) was a good idea, with no major difference in opinion according to socioeconomic group. Younger parents were more favourable to the scheme than older parents.
- 27% of all parents said they would be likely to use the NCCS if it were available. Younger parents said they were more likely to use the scheme.
- A quarter of parents who currently do not use any childcare, and 28% of those parents relying on friends or relatives, said they would use the scheme if it were available.
- The majority of parents who wanted to use the scheme sought assistance of under £200 a month.
• A minority of parents (16%) thought that the availability of the scheme would increase their usage of formal (paid for) childcare.

Not all parents will want to use this proposed scheme. Many parents choose to look after their young children themselves. Some parents will prefer informal provision or be sceptical of the value or quality of formal childcare. That is their choice and one which should be respected.

But, if the NCCS were to be implemented, it offers a real opportunity to address the main problems with the current childcare market: low affordability, indifferent quality, limited flexibility and questionable sustainability. By making the cost of childcare more manageable for parents, and increasing revenue into the sector, the NCCS would help to solve these problems, making formal childcare much more accessible and attractive.

Ultimately, the scheme aims to enable families to increase their use of childcare, especially those in the most disadvantaged circumstances. Then, more families will be able to experience the significant benefits that formal childcare can bring: closer attachment to the labour market and increased human capital for both parents and children. Overall, society would benefit from greater take-up of formal childcare through less welfare dependency, higher education levels and increased prosperity.

Wider take-up of high-quality, formal childcare is central to meeting the policy aims of all mainstream political parties: more labour market participation, gender equity, social mobility and economic growth. The NCCS offers the best hope, in this period of fiscal austerity, of finally building a high-quality, responsive public service that is an esteemed part of our education system.
Box: Structure of the report
The report is structured as follows:

- **Chapter 1** provides an overview of the rich academic literature which shows the clear private and public benefits from increased consumption of formal childcare;

- **Chapter 2** explains that, despite public funding, private contributions to childcare remain high. This means childcare is unaffordable, which is also leading to other problems in the childcare market – low quality, poor flexibility and unsustainable provision. All of these problems are leading to take-up of formal childcare which is below the level that maximises private and public benefit;

- **Chapter 3** introduces the idea of a National Childcare Contribution Scheme (NCCS) to help parents smooth their growing private contribution to childcare costs over a long period of time, and highlights the lessons that can be learned from the student finance scheme;

- **Chapter 4** details the key aims of the NCCS, including fiscal neutrality, progressivity and optimal take-up, and discusses how the rules of the NCCS around eligibility, distribution and parental contributions can be set to achieve these key aims;

- **Chapter 5** presents findings from modelling and polling of parents to show how the key aims of the NCCS can be achieved.
CHAPTER 1: WHY FORMAL CHILDCARE?

This chapter illustrates the importance of the early years for children and the role high-quality formal childcare plays in boosting their cognitive and social development, particularly the most deprived.\(^6\) It goes on to demonstrate the financial consequences for parents of long-term detachment from the labour market, setting out how formal childcare can support parental employment and consequently bring private and social benefits. For equity and efficiency reasons, therefore, there is a clear case for government to support the use of formal childcare.

The critical early years

Evidence shows that genes alone do not determine children’s development; the way children are nurtured has a profound impact.\(^7\) The environment they are exposed to interacts with their genetic profile to influence skill formation.\(^8\)

The brain is particularly malleable during infancy, meaning young children are especially sensitive to external stimuli, which can have a lasting impact on cognitive and non-cognitive development.\(^9\) In fact, since key cognitive and social competencies formed during sensitive periods are built on earlier development, the first sensitive period – infancy – is the most important period for brain development. By the age of three, a human brain has developed to 85% of its potential.\(^10\)

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\(^6\) The Department for Education defines formal childcare providers as day care centres, nursery classes attached to an infants or primary school, reception classes, special day schools, playgroups, child-minders, nannies, au pairs, breakfast and after-school clubs and holiday clubs. All formal childcare providers have to be registered with OFSTED to deliver childcare. Only formal providers can benefit directly from government support. Informal childcare includes relatives, friends and neighbours.


The complementarity of skill formation (that learning begets learning) means that although investment later in a child’s life is essential, it is useless without effective intervention early on in a child’s life to lay the foundations. Indeed, analysis of the 1970 British Cohort Study has found that performance in ability tests at 42 months are closely correlated with education qualifications at aged 26.

The early attainment gap
The attainment gap is the difference between the average test scores of children from affluent backgrounds and the average test scores of children from deprived backgrounds. Children from higher socio-economic backgrounds tend to have richer early years’ experiences than their less affluent peers, contributing to the emergence of the attainment gap from an early age.

The Effective Provision of Pre-School Education (EPPE) study, which followed the development of 3,000 UK children since 1997, found that parental characteristics (such as socio-economic profile and educational qualifications) and the home learning environment (such as reading, stimulating and playing with children) have the most impact on children’s early attainment.

This means children with parents who are materially poorer and have lower educational qualifications are generally at a disadvantage. Children from advantaged backgrounds are exposed to much richer vocabulary. An infant from a workless household typically hears 616 different words per hour whereas an infant from

a professional family typically hears 2,153 different words per hour. Moreover, a typical infant from a professional background would have heard six times more affirmations and 50% fewer prohibitions in an hour than a typical infant from a workless household.

For reasons such as this, by the age of 22 months, a significant gap in cognitive ability has emerged between children from different socio-economic backgrounds.

Analysis of the UK Millennium Cohort Study, which tracks 19,000 children born in 2000-2001, shows that at the age of three, the average score on a measure of school readiness is twice as high for children from the highest quintile of parental affluence compared to the lowest quintile. In 2010, 47% of five year olds from the 30% most deprived areas attained a good level of development at Foundation Stage compared to 61% of children in other areas.

The attainment gap generally widens as children get older. Feinstein reveals there is a gap of 13 percentage points in average cognitive ability between children aged 22 months from the highest and lowest socio-economic backgrounds. This widens to 28 percentage points by the age of ten. Analysis of the 2009 results of children in their Foundation Stage Profile assessment (aged five) and GCSEs (aged sixteen) substantiates this: 66.5% of children from the richest areas attain the expected minimum at Foundation Stage. For those from the poorest areas, this is 27.2%

15 Hart and Risley, *Meaningful differences*.
19 Feinstein, “Inequality in the early cognitive development of British children in the 1970 cohort”, 84.
points lower. When children take their GCSEs, the attainment gap has widened substantially. 72.2% of children in the richest areas attain the expected minimum at GCSE. For those from the poorest areas, it is 38.9% points lower.

The poorer performance of children from more deprived backgrounds reflects their poorer experiences during infancy relative to that of their peers from more affluent backgrounds. It seems poorer parents are less able to draw on critical resources to support their children’s development.

Evidence from the Millennium Cohort Study shows that if parents have higher confidence in their abilities, strong attachment to their child and lay down rules, this can trump any negative effects of poverty. Therefore, interventions to support parenting and early years development can deliver significant improvements in a child’s long-term development, especially for those children from the poorest backgrounds. In fact, a substantial body of research suggests that pre-school interventions reap much higher returns than intervention during primary, secondary or tertiary education.

The role of formal childcare in boosting life chances

In this context, high-quality formal childcare has a critical role to play in substantially improving the development of all children,

20 The poorest and richest children are determined using the IDACI scale. The index is based on Super Output Areas (SOAs) in England, where the most deprived SOAs are those with the highest proportion of families with children under the age of 16 who are in receipt of benefits and whose equivalised income is below 60% of the median before housing costs. In this example, the poorest children represent those living in the 10% most deprived SOAs. The richest children are those living in the 10% least deprived SOAs.
22 Jen Lexmond and Richard Reeves, Building character (London: Demos, 2009), 41-45.
particularly the most disadvantaged. As Box 1.1 demonstrates, several studies in the US and UK have shown the effectiveness of formal childcare in boosting attainment and behaviour – so much, in fact, that formal pre-school care ought to be viewed as vital a part of the modern education system as primary and secondary schools.

**Box 1.1. The benefits of formal childcare**

UK evidence from the EPPE study shows that if children participate in high-quality formal childcare, particularly from the age of two, it enhances their cognitive outcomes and sociability. Childcare helps children from all social backgrounds. But it particularly helps infants from disadvantaged backgrounds – leading to an increase in Key Stage 1 reading and writing which, on average, takes them above the minimum expected level for the age group. The attainment gap was found to narrow between the poorest and richest when poorer children attended high-quality pre-school, especially in socially mixed settings. Equally, the risk of developing learning difficulties falls for those who have attended pre-school. An evaluation of the pilot of free childcare for disadvantaged two year olds in the UK, introduced by the last Labour Government, found that such care had led to a positive impact on children’s language ability and on parent-child relationships.

US evidence shows strikingly the value of high-quality formal childcare at the appropriate age in supporting children’s development in the long-term. Children who attended the intensive Perry Pre-school project in the 1960s, which provided high-quality formal childcare for three and four year old African-American children for poor...


27 Sylva, Melhuish, Sammons, Siraj-Blatchford, Taggart, *The effective provision of pre-school education project: findings from pre-school to end of key stage 1*, 3.

backgrounds, spent longer in school and were more likely to graduate from college compared to peers with similar characteristics who did not participate. At aged 27, they were 50% less likely to have committed crime. By the age of 40, their average income was 40% higher than the control group and they were 26% less likely to have received welfare payments. Professors Flavio Cunha and James Heckman find that the scheme cost $16,514 per child, but saved $150,525 for government in the form of reduced criminality and welfare costs and increased earnings.

Similarly, the Abecedarian project in the 1970s saw 111 disadvantaged children in full day care for five days a week for five years. Compared to similar children deemed at high risk of developmental problems, the Abecedarians emerged with higher educational and health levels.

Perhaps less surprisingly, the higher the quality of formal childcare (associated with higher staff qualifications, particularly for the manager of a childcare setting), the better the child outcomes, including improved independence and pro-social behaviour at entry in primary school, and better reading and mathematics scores at age six. If childcare is of poor quality, it will not improve children’s development.

Good childcare is therefore the foundation for later education and improved educational attainment brings significant benefits. Those with higher educational qualifications earn more and are less likely to be unemployed. Increased educational attainment also

32 Kathy Sylva, Edward Melhuish, Pam Sammons, Iram Siraj-Blatchford, Brenda Taggart, The effective provision of pre-school education project: findings from pre-school to end of key stage, 3-4.
yields sizeable public benefits. Increases in human capital are the key driver of prosperity.35

The advantages of formal childcare over informal childcare
When compared with informal provision, formal childcare is better for children’s long-term development. This is especially the case for more disadvantaged young children. The Institute of Education used the Millennium Cohort Study to analyse the relationship between the type of childcare children received at aged nine months and their performance at three years old. Children in formal care at nine months, particularly those of young mothers on benefits, did better in cognitive tests and demonstrated less problem behaviour at age three than those children receiving formal non-group care, grandparental care or care by relatives or neighbours at nine months.36

Grandparental care from nine months to three years is associated with a significantly higher probability of a child being overweight.37 On the other hand, in the analysis of the Millennium Cohort Study mentioned above, grandparental care when children were nine months was associated with high vocabulary tests scores at aged three. Crucially however, this positive outcome was not apparent for children from poorer backgrounds.38 Overall, the academic literature suggests formal childcare is more likely to serve government’s equity goals. Further, government is more likely to consistently get value for money from investing in formal rather than informal childcare.

The effect of formal childcare on parents

The early years of a child’s life are life-changing for parents, with many new emotions, experiences and challenges. With parents having to find a large amount of time and resource to look after very young children, adult relationships can come under strain. 39

These early years also have a substantial effect on maternal employment. This is because it is frequently women whose labour market participation is most affected by household decisions about the balance of work and caring in the early years of a child’s life.

Parents should be in a position to choose to decide their childcare arrangements based on what they think is in the best interest of themselves and their family. Nonetheless, higher maternal employment has significant private gains: employment is associated with higher individual well-being and higher income levels, in the short and long term. 40

The financial benefits of strong attachment to the labour market are clear. A study by the Equal Opportunities Commission finds that for every year a mother spends out of the labour market for caring responsibilities, her wage decreases by 0.8% compared to an equivalent man. This is in addition to a further 2.6% which is, on average, lost because of a year out of the labour market for a man or woman. 41 Overall, a mother is likely to lose 3.4% from her wages each year relative to an employee who has stayed in the labour market. Putting that in context, a mother who previously earned £20,000 per year who remains outside paid employment


41 This study uses a representative sample of 10,000 people from the British Household Panel Survey (BHPS). See Wendy Olsen and Sylvia Walby, Modelling gender pay gaps (Manchester: Equal Opportunities Commission, 2004), 16.
where her child is aged one and two could face a pay penalty of up to £1,500 per year for the report of her career compared to a colleague returning to work after maternity leave. Furthermore, stronger attachment to the labour market improves pension eligibility, enhancing the standard of living in older age.

Maternal employment has increased substantially in the last half-century at about 11% per decade. In 2008, just over 60% of married women with children under the age of five and just over 35% of lone parents with children under the age of five were in employment; up from roughly 55% and 25% respectively in 1996.

The greater availability of formal childcare has been one reason among many for why maternal employment has risen. The size of the effect on maternal employment of subsidising formal childcare is debated. US evidence suggests it is rather modest, although it is higher for low-income and less-skilled mothers.

As a consequence, formal childcare helps reduce government expenditure in the short-term (through more benefit claimants becoming taxpayers) and in the long-term (through citizens who have acquired higher human capital, increasing their productivity and reducing their risk of future labour market exclusion). Further, high-quality formal childcare brings private and public benefits through reduced child poverty and greater gender equity.

**Childcare’s contribution to reducing child poverty**

It is rare for a child to be living in poverty if two parents are working.

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Analysis of the DWP’s Households Below Average Income (HBAI) survey finds that the risk of relative poverty for a child in which all adults work is 7%, compared to 53% for children in workless households.\textsuperscript{46} Equally, a child growing up with a non-working lone parent is ten times more likely to be living in poverty than if they are growing up with a working lone parent.\textsuperscript{47}

Compared with other OECD countries, the proportion of working mothers with children under the age of three in the UK is average.\textsuperscript{48} Looking at the child poverty rate of 21 OECD countries, UNICEF finds that the UK is in the bottom quintile.\textsuperscript{49} Before taxes and transfers, more than 25% of UK children live in poverty.\textsuperscript{50} Therefore, since subsidised formal childcare is proven to support female employment, it also plays a role in reducing child poverty in the short-term, as well as protecting a family from poverty in the future.

Reduced child poverty has clear private benefits for children and adults. Families are less likely to be engaged with or experience crime and report higher levels of well-being;\textsuperscript{51} children and adults are more likely to develop their potential. The public benefit is also clear: if fewer children are growing up in poverty, they are less likely to be engaged in anti-social behaviour and consume welfare resources in the future. Furthermore, UK universities and

\textsuperscript{46} Department for Education and Department for Health, \textit{Supporting families in the foundation years} (London: HMSO, 2011), 47.
\textsuperscript{47} Dave Simmonds and Paul Bivand, \textit{Can work eradicate child poverty?} (York: Joseph Rowntree Foundation, 2008), 10.
\textsuperscript{48} Such as France, the United States, Netherlands, Canada and Sweden. See OECD, \textit{Doing better for families} (Paris: OECD, 2011), 37.
\textsuperscript{49} The child poverty rate is classified as the proportion of children living in households with incomes less than 50% of the national average. The UK is in the bottom quintile alongside Italy, Spain and Portugal. See UNICEF, \textit{The children left behind: a league table of inequality in child well-being in the world’s rich countries} (Florence: UNICEF, 2010), 22.
\textsuperscript{50} UNICEF, \textit{The children left behind}, 22.
businesses will be able to recruit from a broader talent pool, boosting competiveness.

The benefits of childcare to boosting gender equity
Despite women’s wages starting off higher when they leave education, a gender pay gap persists. A large part of the explanation is that motherhood severely penalises women’s earnings relative to men, as described above. The gender pay gap is much lower among all childless women (9%) than when working mothers are compared to working fathers (22%).

Motherhood, unlike fatherhood, is disadvantageous for employment prospects. This arises from a large number of intertwined reasons – from private preferences to historical, social and economic factors. The gendered division of caring responsibilities plays a part. This is exacerbated by public policy and in particular the parental leave system, which gives women a longer period of leave and, for the first six weeks, a higher rate of pay.

Caring responsibilities need not be allocated on gendered lines. Increasingly, they are not, and the Coalition Government is looking to allow fathers greater leave entitlements. But the fact that women continue to assume most caring responsibilities has two implications. First, because they tend to spend longer out of the labour market or are more likely to work part-time, they accrue less human capital and have more restricted employment opportunities than men. Second, because women – even those who are currently childless, and indeed may always well be – are seen to need to sacrifice more of their work for family duties, now or in the future, some employers are less likely to recruit or promote

54 Department for Education and Department for Health, Supporting families in the foundation years, 38.
them. As a result, from around the age of 30, all women tend to earn less than men. So, overall, the difference between the average hourly mean pay of a full-time man and a full-time woman is 17.2%. For part-time women, their average hourly pay is 35.6% less than a full-time working man.\textsuperscript{56} Therefore, not only does the act of caring suppress the future wages of mothers, but the gendered perspective on caring reduces the pay of all women.

Access to childcare can play an important role in improving gender equality by raising the perception and reality of improved labour market attachment for women. Since time out of the labour market reduces pensions entitlement, women are further disadvantaged, underlining the important role childcare can play in increasing female attachment to the labour market and thus gender equity.

As well as these private gains, greater gender equality is associated with public benefits: reduced female dependency on welfare resources, and increased tax revenue from higher female employment and salaries.

**Private and public benefit**

In fact, there has been an attempt to quantify the net public benefits of childcare. A comprehensive report from the Social Market Foundation, Daycare Trust and Pricewaterhousecoopers in 2003 calculated that the revenue to HM Treasury of improved parental employment and long-term productivity of children would exceed the cost of government funding universal formal childcare provision for all 1-4 year olds by around £40 billion over a 65-year period.\textsuperscript{57}

Of course, government could decide that public funding should be spent to support the expansion of informal childcare –

\begin{itemize}
\end{itemize}
for example, by offering generous leave payments for grandparents looking after grandchildren. But, as the Department of Education has noted, this would be a mistake.\textsuperscript{58} Most of the money would be deadweight expenditure – paying people who would have provided informal care without extra financial support.\textsuperscript{59} Thus it would do little to boost jobs, businesses or tax revenue. Where it had an impact, it would simply lead to another person dropping out of the labour market, probably making the public benefit zero (unless, of course, the parent is a more productive worker than the carer). In addition, incentivising older workers to leave the labour market would increase their vulnerability to poverty.\textsuperscript{60}

More importantly, as established earlier in the chapter, a child’s development (especially more deprived children) is benefitted less by informal than formal childcare. Distributing public money to these informal carers would require registration and inspections of them, which is likely to be invasive, complex and expensive. Consequently, the private and public benefits are marginal for informal childcare compared with formal childcare.

Following the work of Arthur Okun in the 1970s, most economists assume that redistributive policies must sacrifice efficiency for greater equity. In her paper, \textit{Can equity and efficiency complement each other?}, Rebecca Blank finds some important exceptions to this rule.\textsuperscript{61} These are for transfers that are best understood as investments in human capital. One example she cites is support for high-quality formal childcare. So as well as having public and private benefit, government support for formal childcare is exceptional as a redistributive policy in achieving both equity and efficiency.

\textsuperscript{58} Department for Education and Department for Health, \textit{Supporting families in the foundation years}, 40.

\textsuperscript{59} Note this is not the same as the economic concept of “deadweight cost”.


Despite the advantages of high-quality formal childcare for individuals, society and government, formal childcare is still not a universal service which is accessible for all families, unlike many other public services such as the NHS, and in particular other parts of the education system such as schools, further education colleges and universities. This is despite the greater private and public returns from earlier investment.

This situation makes little sense from an efficiency or equity perspective. It likely stems from the late arrival of formal childcare as an accepted area of public policy, with public funding only starting in the mid-1990s. From this time, there has been a trend towards greater co-payment in public services, such as NHS dentists and university fees, to alleviate the pressure on public finances. Childcare, searching greater public funding, has been swimming against the tide. Further, there are difficulties in lobbying for investment to be prioritised in formal childcare because it affects a smaller number of people for a shorter length of time.62

But if government was really serious about raising educational standards, it would ensure formal childcare was accessible to all families. However, as the next chapter explores, despite significant increases in public funding of formal childcare in recent decades, the private contributions parents face remain a substantial barrier to optimal levels of take-up.

62 Henry Kippin and Alison Wolf, What are the underlying principles of our education system? (London: RSA 2020 Public Services Trust, 2010), 12.
CHAPTER 2: THE AFFORDABILITY PROBLEM

The previous chapter illustrated the assortment of private and public benefits for children and adults of using formal childcare.

This chapter shows that despite impressive increases in government spending on formal childcare over recent decades, the private contribution made by parents remains high. Moreover, a recent paper by the Social Market Foundation, *The Parent Trap*, has forecast that private contributions for families on different points on the income scale will grow markedly in the years ahead. The chapter demonstrates that these high and growing private contributions make formal childcare increasingly unaffordable.

This has damaging feedback effects. The lack of affordability causes demand for formal childcare to be low and volatile. As such, childcare settings lack the capacity to provide the quality, sustainability and flexibility families need, all of which leads to low take-up of childcare. This means the full private and public benefits of formal childcare are not being realised.

The reasons for low take-up of formal childcare

Considering its clear benefits, formal childcare in the UK is not used as widely as it might be, particularly compared with other OECD countries. A European Commission study found that attendance in formal childcare in 2006 for all under-threes in the UK was 33%. This compares with 39% of all under-threes in Spain, 40% in Belgium, 45% in the Netherlands and 73% in Denmark.\(^63\)

In fact, take-up is lowest among families from lower socio-economic backgrounds, where the benefits of formal childcare are most pronounced. For two-year olds, the use of childcare is much

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higher than for younger children, but only 43% of two years olds from the poorest 20% of families in the UK use childcare compared to 72% of two-year olds from the richest 20% of families.\textsuperscript{64}

Of course, the reasons why families do not use formal childcare are varied, and cannot just be assumed to be because of the high private contributions parents have to make. For many parents, it is an expression of their choice to care for their child at home. For those parents who do not use formal childcare, 68% say they would rather look after their children at home.\textsuperscript{65} Equally, many parents prefer the informal care of friends and relatives, especially for younger children. Grandparental care remains the most popular form of non-maternal childcare for all ages.\textsuperscript{66}

Nonetheless, there does seem to be substantial latent demand for formal childcare, suggesting that something is limiting its use. Indeed, when the last Labour government improved the generosity of public support, there was a dramatic upward trend in the use of formal childcare. The increased generosity over the last decade of tax credit support for childcare has been matched with rising numbers claiming support. Tellingly, the increase in use between 1999 and 2001 was especially concentrated among lower-income families, which suggests costs may have been an issue.\textsuperscript{67}

Four types of constraints for usage of formal childcare can be identified: information, supply, price and credit constraints.

\textsuperscript{64} Department for Education and Department for Health, \textit{Supporting families in the foundation years}, 29.

\textsuperscript{65} Svetlana Spreight, Ruth Smith, Ivana La Valle, Vera Schneider, Jane Perry, Cathy Coshall, Sarah Tipping, \textit{Childcare and early years survey of parents 2008} (London: Department for Children, Schools and Families, 2009), 85.

\textsuperscript{66} Vidhya Alakeson, \textit{Childcare: failing to meet the needs of working parents} (London: Resolution Foundation, 2009), 8,9.

\textsuperscript{67} Jeff Masters and Natasha Pilkauskas, \textit{Access to good quality affordable childcare: the role of demand subsidies in the United Kingdom} (Boston: Harvard University, 2004), 23.
Information constraints

First, a lack of information about the benefits of formal childcare may be playing a role in preventing take-up. Cultural factors may also restrict uptake of childcare, including suspicion of childcare staff or norms around the role of mothers. Lack of trust of formal childcare provision, for example, is more prevalent in lower socio-economic groups. Recent research has also revealed that some mothers in the most deprived areas sometimes shun childcare settings because of a fear of being judged or isolated.

Supply constraints

Second, problems with the supply of childcare may limit take-up – for example, the perceived quality, flexibility and availability. In a representative poll of parents with children under the age of five, which SMF commissioned from Yougov in November 2011 for this report, 5% of parents using childcare reported that they were dissatisfied with the quality. On flexibility, 22% of all parents using childcare said they were dissatisfied. On availability, 34% of parents in an annual survey for parents by the Department for Education report a lack of places. These constraints have differing impacts upon different groups of parents because of varying personal circumstances. A family living in a more rural area, for instance, may face more limited availability of formal childcare.

Price and credit constraints

However, these supply constraints are in part caused by the third and fourth constraints that parents face: price and credit constraints. With low demand caused by these constraints, the

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68 Smith, Poole, Perry, Wollny, Reeves, Coshall, d’Souza, Bryson, Childcare and early years survey of parents 2009, 91.


71 Smith, Poole, Perry, Wollny, Reeves, Coshall, d’Souza, Bryson, Childcare and early years survey of parents 2009, 94, 95.
amount of revenue flowing into the formal childcare market makes supply vulnerable to small changes in demand and reduces the opportunities for economies of scale. This makes it harder for providers to invest in quality staff, expand their places and offer flexible hours.

Price constraints refer to parents being deterred from using formal childcare because of the associated costs. But costs are not the only reason why childcare affordability may be low. Credit constraints refer to parents not having access to the funds to pay for it even though they would like to at the prevailing price.

High costs cause both price and credit constraints. The polling conducted by YouGov for SMF suggests the costs of childcare is a bigger problem for parents than the flexibility, quality and availability. As demonstrated in Chart 2.1, 55% of all parents believed that the expense of childcare was a problem for parents in the local area. The struggle may be compounded by the delay in receiving tax credits, where parents often have to absorb the high costs themselves.72 Particular groups of parents find it especially difficult to fund childcare: those in households with low incomes, lone parents and those with high weekly childcare costs.73 The OECD has recently commented: “Childcare costs can remain a barrier to work for parents higher up the income scale, and there is room in UK policy for an effective childcare supplement for working parents.”74


73 Smith, Poole, Perry, Wollny, Reeves, Coshall, d’Souza, Bryson, Childcare and early years survey of parents 2009, 83, 84.

Credit constraints apply when there are parents who cannot afford formal childcare but would want to pay for it if they had the money. Analysis of the Millennium Cohort Study finds that 11% of full-time mothers reported that they stayed at home full-time because they could not meet the costs of formal childcare.75 More recently, the National Centre for Social Research has recently found that 10% of all parents reported that they could not afford to pay for the costs of formal childcare.76 For parents with a child under the age of two, though parental preference is still reported as the main reason for not using childcare, 16% of families not using formal childcare say it is because of cost problems.77

76 Smith, Poole, Perry, Wollny, Reeves, Coshall, d’Souza, Bryson, Childcare and early years survey of parents 2009, 99.
77 Smith, Poole, Perry, Wollny, Reeves, Coshall, d’Souza, Bryson, Childcare and early years survey of parents 2009, 101.
Price constraints apply when parents who could afford to use formal childcare choose not to perhaps because informal childcare is free or cheaper.\textsuperscript{78} The reasons why parents choose informal care over formal care is varied.\textsuperscript{79} Some parents positively want to use informal care, but some are simply choosing informal provision because the costs of formal care are so much higher. This is particularly true for working-class parents: in using informal provision, they may be exercising less choice than middle-class parents.\textsuperscript{80} For those parents using informal provision for under-twos, 22\% report using this type of childcare because formal provision is too expensive.\textsuperscript{81} In fact, 11\% of families currently not using formal provision say they would shift to it if it was more affordable.\textsuperscript{82}

Both credit and price constraints also mean many parents using formal childcare may also struggle to pay for as many hours as they would like to use. This is because the more hours a family needs, the less government support it receives. The free entitlement is only available up to a maximum of 15 hours and support through the tax credit system is capped at a specific amount. It is telling that the average number of weekly hours of formal childcare for a child under the age of two is 14.4, well below the EU15 average of 24.7.\textsuperscript{83}

Public funding for childcare

These price and credit constraints exist despite the high levels of public support available. Recognising the clear public benefits of childcare, governments over the past two decades have

\begin{footnotesize}
\begin{enumerate}
\item Only 8\% of families using informal providers report that they pay a fee. Of those that pay, the median weekly cost is £15. See Smith, Poole, Perry, Woliný, Reeves, Cosshall, d’Souza, Bryson, Childcare and early years survey of parents 2009, 72-75.
\item For a detailed discussion of this, see Jill Rutter and Ben Evans, Informal childcare: choice or chance? (London: Daycare Trust, 2011).
\item Carol Vincent and Stephen Ball, Childcare, choice and class practices (London: Routledge, 2006).
\item Smith, Poole, Perry, Woliný, Reeves, Cosshall, d’Souza, Bryson, Childcare and early years survey of parents 2009, 102.
\item Smith, Poole, Perry, Woliný, Reeves, Cosshall, d’Souza, Bryson, Childcare and early years survey of parents 2009, 100.
\item Margherita, O’Dorchai, Bosch, Reconciliation between work, private and family life in the European Union, 58.
\end{enumerate}
\end{footnotesize}
dramatically increased investment in childcare. Consequently, pre-school education has developed into what the former Prime Minister Tony Blair described as a “new frontier of the welfare state" and a modern public service.84 Its late maturation in this country has enabled some market features of modern public services to be applied to it: funding is largely determined by the choices of users; there is competition between a mixture of providers; co-payment is common; and the market is locally managed.85

Between 1997 and 2007, the Labour Government spent £17 billion on early years and childcare services in England, kick-started by the first ever National Childcare Strategy published in 1998.86 This aimed to radically improve the affordability, quality and availability of childcare to help child development and allow parents to access work and training.87

The OECD described the injection of funding between 1997 and 2001 as “an unprecedented effort”.88 The OECD also commented that, between 2003 and 2007, “the UK strengthened its position as one of the biggest investors in families in the OECD”89. In 2007, public expenditure on childcare and early years education was among the highest in the OECD, lower only than Denmark and Sweden.90 Box 2.1 is a detailed description of the tapestry of supply-side and demand-side government support that is available for families to help with childcare costs.

Box 2.1. Government support for childcare costs

The free entitlement

The biggest source of funding in pre-school care is the free entitlement, introduced by Labour in 1997. This replaced the Nursery Voucher Scheme introduced by the Conservatives in 1996, which provided a flat rate voucher of £1,100 per annum for all parents of four-year olds to spend on nursery education services. The free entitlement is distributed to local authorities via the Dedicated Schools Grant. School Forums in Local Authorities then decide on the allocation of funding to eligible childcare settings based on participation rates, showing it is a demand-side funding mechanism.

From April 2010, this allocation was based on a new Early Years Single Funding Formula, after different childcare settings complained they did not receive adequate or consistent amounts to fund the provision of free hours.

Over time, the free entitlement has been increased. It now guarantees 15 hours a week for all parents of three and four year olds for 38 weeks in a year and will be extended to give 40% of all two year olds 15 hours a week.

The take-up of the free entitlement is high: 87% of eligible three and four year olds take advantage of early years education, although take-up is lower for more deprived three year olds. Annual investment in the free entitlement increased from £2.2 billion per annum in 1997-98 to £4.1 billion per annum in 2007-08.

92 Private, Voluntary and Independent (PVI) settings are paid on a participation basis. 88% of all free entitlement places are delivered by the PVI sector. Until the national rollout of the Early Years Single Funding Formula (EYSFF) in April 2011, maintained nurseries were paid on the number of places they had. This inconsistency was corrected with the implementation of the EYSFF. See Children, Schools and Families Select Committee, Seventh report: the early years single funding formula (London: HMSO, 2010), http://www.publications.parliament.uk/pa/cm200910/cmselect/cmchilsch/131/13106.htm.
93 Smith, Poole, Perry, Wollny, Reeves, Coshall, d’Souza, Bryson, Childcare and early years survey of parents 2009, 41; Svetlana Speight, Ruth Smith, Cathy Coshall, Eva Lloyd, Towards universal early years provision: analysis of take-up by disadvantaged families from recent annual childcare surveys (London: Department for Education, 2010), 32.
Sure Start

Government investment also goes directly to service providers through Sure Start funding for Children's Centres. Established in 1999, Sure Start was designed as a set of local programmes which provided cross-department services in childcare, education and health to "work with parents-to-be, parents and children to promote the physical, intellectual and social development of babies and young children- particularly those who are disadvantaged". Before 2006, these Children's Centres were centrally funded, before becoming the funding responsibility of local authorities in a ringfenced budget.

Children's Centres built in the most deprived areas during Phase One of Sure Start were, until 2010, required to provide full day care. Many other Centres in Phase Two and Three also provide childcare. A recent government survey of parents using Sure Start finds parents use Children’s Centres for childcare more than any other service. Nearly three quarters of Children’s Centres managers report Sure Start funding is essential to the maintenance of full day care, even though it was not originally intended to fund childcare within Children’s Centres, showing Sure Start money to be a fundamental component of government funding for childcare.

The Coalition Government have now removed the ringfence from Sure Start funding and decreased funding in real terms by 9% over a four-year period. So, although funding for the free entitlement is being maintained, public investment for childcare via other funding channels is being reduced. Indeed, only 25% of Children’s Centres offered full daycare in 2010, compared to 35% in 2009.

Benefit disregards
Cash transfers direct to parents are also provided by government through benefits disregards. In 1994, the Conservative Government introduced a childcare disregard for people claiming Family Credit, Housing Benefit and Council Tax Benefit. The latter two still exist today. This means parents on very low incomes working at least 16 hours a week can disregard childcare costs from the calculation of their Housing Benefit and Council Tax Benefit. The effect of these disregards is that it covers up to 85% of childcare costs for some very low income families. In combination with tax credit support, benefit disregards could mean very low income working families seeing up to 95.5% of childcare costs met by government.

These disregards will end in 2013 with the introduction of the Universal Credit. Government funding for the disregards will be transferred to the childcare element of the Universal Credit. In most cases, this will mean a reduction in childcare support for those in high cost housing and on very low pay.

Tax credits
The major form of cash transfer available to help parents with their childcare costs is the childcare element of the Working Tax Credit. Parents eligible for the Working Tax Credit report their forecast annualised childcare costs and receive a tax credit entitlement on a weekly or monthly basis to help with costs after registering with a formal childcare provider. Before April 2011, eligible parents could receive up to 80% of their weekly childcare costs up to a maximum of £175 per week for one child and £300 per week for two children. They can presently only receive up to 70% of their costs. This equates to a reduction of up to £30 per week for parents with two children.¹⁰⁰

The childcare element of the Working Tax Credit is currently available to low- and middle-income households where each member works more than 16 hours per week. The total amount parents get is currently tapered away at 41p for every extra £1 earned once the other main elements of tax credits have been withdrawn, meaning parents on higher incomes receive less.

Most parents do not claim the maximum amount of support allowable. The average childcare expenses claimed for in April 2011, for instance, was £95.96 per week.\(^{101}\) Most parents claiming the childcare element of the Working Tax Credit, under current arrangements, would therefore receive 70% of this.

In 2013, the Coalition Government will introduce the Universal Credit, to replace tax credits and a number of other benefits. Parents will still be entitled to claim for up to 70% of their total childcare costs at current maximum award levels of £175 per week for one child and £300 per week for two children. But parents working less than 16 hours a week will, for the first time, be supported, after an additional £300 million was found from government finances, benefiting an estimated 80,000 more families.\(^{102}\)

### Tax exemption on employer-supported childcare vouchers

Parents are entitled to tax and National Insurance (NI) exemptions through the purchasing of employer-supported childcare vouchers for formal childcare. Parents working for participating employers typically agree to sacrifice some of their salary in exchange for a voucher which helps them purchase formal childcare. The value of the voucher varies for different taxpayers.

Since 2006-07, parents have been entitled to tax and NI exemption on up to £55 per week. In 2005-06, the year tax and NI exemption was introduced, the face value of the voucher was £50 per week.

Previously, because of their higher tax rates, high-rate taxpayers received more support (tax and NI exemption) for the same voucher face value than basic rate taxpayers. Their support was capped in 2011-12 to prevent them from receiving more support than basic-rate taxpayers.

Higher-rate taxpayers are now eligible for tax and NI exemption on up to just £28 per week. Additional rate taxpayers are eligible for exemption on up to £22 per week. A further change in 2011-12 was that the income threshold for higher rate tax was lowered, meaning more recipients of childcare vouchers will now be entitled to the lower value vouchers.

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Access to childcare vouchers is somewhat arbitrary. Parental access to the scheme is entirely dependent on whether the employer – who also benefits from exemption from class 1 NI contributions – offers the vouchers.

A salary sacrifice cannot take an employee lower than the minimum wage and therefore workers who are paid at and close to the NMW cannot benefit. Self-employed people are not entitled to this support, even if their earnings are sufficient.

HM Treasury forecasts that there are 450,000 people using childcare vouchers.103 Of these, 60% are estimated to be basic rate taxpayers.104 It is difficult to know the distribution of the households that were benefiting as the entitlement is per person. Two-earner couples can claim twice.105 Overall, the estimated cost to HM Treasury of all tax and NI relief in 2011-12 is £550 million.106

High co-payments in formal childcare

While public funding for formal childcare is high in the UK relative to other countries, parental private contributions to the costs are also high. Parents, particularly on low- and middle-incomes, can access a variety of support from government. But, even with subsidies, private costs remain high, hence the price and credit constraints on using formal childcare are substantial.

If a parent has a child aged two or below, they do not have access to the free entitlement, unless they belong to the bottom two quintiles in the income distribution and have a child aged two.107 Furthermore,

103 Accurate numbers of users each year cannot be acquired since employers are not required to record and report how many of their employees use the scheme, as part of an attempt to reduce administrative burden.


106 Hansard, Parliamentary answer by David Gauke MP, November 14, 2011, c638W.

107 This contrasts sharply with other European countries: in Denmark, for instance, free childcare is available to children from the age of six months. See Stig G. Lund, “Early childhood education and care services for 0-3 year old children in Denmark”, Children in Europe, 20 (2011), 22.
the majority of parents with older pre-school children require childcare above their free entitlement hours: around 60% of parents pay for more than the free entitlement of 15 hours for their children.\(^{108}\) This is shown by the fact that median number of hours a child spends in formal childcare between the ages of three and five is 17.1 hours a week.\(^ {109}\)

Although parents on low incomes can currently claim up to 70% of their overall costs through the tax credit system, the remaining 30% can be significant. Professor Holly Sutherland reminds “how dangerous it would be to ignore the potential burden that 30 percent childcare costs can constitute”.\(^ {110}\) In addition, the cost of a full-time place in some parts of England – especially in the South – is well above the maximum threshold for support from the tax credit system of £175 per week for one child. Larger families may have considerable childcare costs too, well above the absolute maximum of £300 per week for all children. So the private contribution some parents have to make will be significantly higher than 30% of the overall ticket price.

There is even evidence that, despite the 2006 Code of Practice forbidding the charging of parents for free hours, providers are offering the free entitlement only as part of a subsidised package of more than 15 hours: 9% of parents of 3 year olds, for instance, report that they received the free entitlement but not free hours.\(^ {111}\) Parents also have to pay for other costs associated with formal childcare: this includes deposits, refreshments and trips.\(^ {112}\)

\(^{108}\) Department for Education and Department for Health, Supporting families in the foundation years, 32.

\(^{109}\) The mean is 21.1 hours a week. See Smith, Poole, Perry, Wollny, Reeves, Cosshall, d’Souza, Bryson, Childcare and early years survey of parents 2009, 39.

\(^{110}\) Holly Sutherland, One parent families, poverty and labour policy (London: National Council for One Parent Families, 2002), 32-33.

\(^{111}\) Smith, Poole, Perry, Wollny, Reeves, Cosshall, d’Souza, Bryson, Childcare and early years survey of parents 2009, 41.

\(^{112}\) Smith, Poole, Perry, Wollny, Reeves, Cosshall, d’Souza, Bryson, Childcare and early years survey of parents 2009, 68.
In addition, many families have to pay a deposit or upfront fees to secure a place at a childcare setting. The median upfront payment is between £300 and £500. Fifty-eight per cent of parents struggle with these fees, especially those lower down the income scale. Twenty-one per cent of parents said the upfront fees affected their decision to return to work.113

The private contributions for childcare of many middle- and high-income parents are the highest in 21 OECD countries, where they have to typically contribute between 75-93% to the cost of childcare.114 A recent study has shown that for many families with young children in the UK, private contributions to childcare costs are twice that for French families and three times that for German families.115

This apparent contradiction between high public funding and high private contributions is resolved by the fact that childcare costs are particularly high in the UK. A European-wide 2009 study found that the cost of a childcare place for a child under the age of two is higher in the UK than anywhere else in Europe.116

Various explanations are given for these high and rising childcare costs. The drive for higher staff qualifications, the introduction of the National Minimum Wage and relatively tough regulations surrounding staff-to-child ratios are identified as leading reasons.117 Other factors include the unsatisfactory level of funding for the free entitlement, which causes nurseries to recover losses through

113 Patricia Bartholomeu, Pip Dorkings, Kathleen Egan, Roz Hampson, Childcare advance: scoping the need for help with up-front costs (London: Daycare Trust, 2009).
114 Antonia Margherita, Sile O’Dorchai, Jelle Bosch, Reconciliation between work, private and family life in the European Union (Luxembourg: Office for Official Publications of the European Communities, 2009), 61.
116 Margherita, O’Dorchai, Bosch, Reconciliation between work, private and family life in the European Union, 61.
117 It is estimated that 75% of nursery operating costs are on staff and “wage costs have been growing above the rate of inflation”. See PriceWaterhouseCoopers, DfES children’s services (London: PriceWaterhouseCoopers, 2006), 25-27.
higher fees than they would otherwise charge outside these hours. In addition, nurseries are increasingly recruiting younger children (because of the trend in the UK towards children starting school earlier) where staff-to-child ratios are more stringent.\textsuperscript{118} There is a theory that government subsidy for childcare may also be inflating childcare costs, but this is unproven and relies on an assumption that the sector is uncompetitive. Either way, it is likely to be a short-run effect.\textsuperscript{119}

**Deteriorating affordability**

The private contributions parents face are set to rise in the years ahead as the ticket price for childcare continues to rise – usually above inflation – and state support declines.\textsuperscript{120}

The SMF recently quantified the level of private contribution a family on different points of the income scale make towards overall typical childcare costs in selected years between 2006-07 and 2015-16. Box 2.2 shows how childcare is becoming more expensive for families. The report concludes that the findings show “an alarming deterioration in childcare affordability for families at all points in the income spectrum”.\textsuperscript{121}

\begin{itemize}
\item \textsuperscript{118} Staff: child ratios as specified in the EYFS for under-2’s is 1:3. For 2-3 year olds, it is 1:4. For 3-8 year olds, it is a minimum 1:8, but varies for different settings. See Department for Children, Schools and Families, *Statutory framework for the Early Years Foundation Stage: setting the standards for learning, development and care for children from birth to five* (Nottingham: Department for Children, Schools and Families, 2007), 49-51.
\item \textsuperscript{119} In the long-term if the amount of revenue (public or otherwise) flowing into providers was substantial to make large profits, other providers would have strong incentives to enter the market, increasing supply and lowering price.
\item \textsuperscript{120} For the past decade, Daycare Trust has collected the average costs of childcare for different ages, regions and childcare providers. It shows that childcare costs have generally risen above the Consumer Price Index (CPI).
\item \textsuperscript{121} Mulheirn and Shorthouse, *The parent trap*, 39.
\end{itemize}
Box 2.2. Changing childcare affordability

The SMF’s recent report, *The Parent Trap*, took the forecast level of public support and the typical childcare costs families face in selected years between 2006-07 and 2015-16 and built a model to project the typical private contributions families on different points on the income scale will make towards childcare costs now, in the past and in the future. This is shown in Chart 2.2.

**Chart 2.2. Annual residual childcare costs for a family at different points on the income scale with typical childcare costs, 2006-07 to 2015-16**

Chart 2.2 demonstrates that typical private contributions, in constant 2011 prices, are likely to rise substantially between 2006-07 and 2015-16. The analysis shows a marked deterioration in affordability across the income scale by 2015-16. In absolute cash terms the

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122 This chart show how entitlement for childcare support would evolve were the current tax credits regime to be in operation in 2015-16. In reality, many families may have migrated onto the new Universal Credit system by then. Families on Universal Credit will be eligible to claim for childcare support at the same percentage and maximum limits as today though support will be available to families working under 16 hours. This support will taper away over a similar income range. This means families will be eligible to claim for the same level of childcare support, although the household income levels these groups refer to, and therefore the numbers of families within them, may change marginally for those families claiming Universal Credit in 2015-16.
deterioration in affordability is greater at the top end of the income scale, smaller lower down. In proportionate terms, however, the picture is reversed. At the lower income end, families are set to be paying almost two-thirds more – 62% – from their own pocket by 2015-16 compared to 2006-07 in today’s prices. The middle-income family can expect to contribute 25% more, while the high-income group will face a 42% up-lift in their contribution compared to 2006-07 for the same amount of childcare.

This deteriorating affordability will exacerbate the price and credit constraints parents face, resulting in lower take-up of formal childcare. There will be parents currently using formal childcare who in the future will either stop using childcare or struggle with the costs. Indeed, in a poll of parents using the childcare element of the Working Tax Credit in early 2011, 22% said they would stop working altogether and 29% said they would reduce their hours of paid employment because of the decreased support through the tax credit system coming into effect in April 2011. Furthermore, a survey in summer 2011 – shortly after tax credit support was reduced – found that a quarter of parents in severe poverty had given up work because of the high cost of childcare In this context, informal provision – which, as shown in Chapter 1, is poorer for children’s development – could become more attractive than formal provision to parents in the years ahead.

The affordability of formal childcare is a large and growing problem for many parents and further policy solutions are needed to ease the pressure on families.

How the lack of affordability causes other problems in the formal childcare market

The unaffordability of childcare causes other problems within the formal childcare market. The majority of Government support puts financial control in the hands of parents. This has both positive

125 Janaki Mahadevan, “Informal childcare is ‘biggest competition to professional providers’”, Children and Young People Now, June 10, 2011.
and negative implications: on one hand, this makes providers responsive to the demands of parents; on the other hand, this makes providers very vulnerable to the changing constraints and preferences of their target customer: local parents. Childcare settings are operating in very fragile markets. Employment and family finances can change abruptly, and settings are always competing with informal provision, which is either free or lower in cost. If a low- or middle-income worker loses their jobs, after four weeks they lose entitlement to the Working Tax Credit, cutting off access to vital subsidy for childcare fees.¹²⁶

Compared to other parts of the education system, childcare also operates in a very localised market. This contrasts sharply with higher education, where universities can attract potential students from across the UK, and abroad. This makes the potential customer base for childcare settings very small. It also shows that parents value the proximity and convenience of settings, which can be difficult for formal settings who are fixed in one place and have more rigid opening hours. In essence, formal childcare providers are highly exposed to the changing preferences and constraints of a small customer base, operating in highly competitive, heavily segmented, fragile micro-markets.

Most nurseries, of which over 80% are located in the Private, Voluntary and Independent (PVI) sector,¹²⁷ operate on tight margins.¹²⁸ This is hard to change because it is difficult for childcare settings to build economies of scale. Smaller providers dominate; large scale providers¹²⁹ account for only 15% of all nurseries in the UK.¹³⁰ Even if demand was not so niche, economies of scale are also hard to attain

¹²⁶ Joe Caluori, Childcare and the recession (London, Daycare Trust, 2009), 2.
¹²⁸ Caluori, Childcare and the recession, 2.
¹²⁹ Defined as companies, sole traders, partnerships and third sector organisations operating three or more nurseries
¹³⁰ Blackburn, Children’s nurseries UK market report 2009, 51.
because of regulated staff-to-child ratios, meaning labour costs – which account for, on average, two thirds of nurseries expenditure – increase as numbers attending increase.\textsuperscript{131} A considerable increase in demand is required to acquire substantial profit.

So formal childcare settings currently face an uphill struggle to significantly increase revenue or generate efficiencies. Coupled with the fact that the flow of money into formal settings is limited and often unreliable, the revenue needed to improve the availability, flexibility and quality of childcare is hard to attain. But all of these qualities are demanded by parents if they are to use formal childcare. Pushing the cost burden onto parents through higher charges would only exacerbate the affordability challenge, constraining demand further.

**Low quality**

Though improving, quality is not as high as it could be. There have been improvements overall in the quality of early years settings, according to OFSTED inspections, especially since the introduction of the Early Years Foundation Stage curriculum in 2008.\textsuperscript{132} Nonetheless, the quality of pre-school education remains a problem. A child today in the most deprived area is still three times more likely to be attending an inadequate childcare setting than a child in the least deprived area.\textsuperscript{133}

The EPPE study concluded that highly-qualified staff is key for the delivery of high quality childcare.\textsuperscript{134} In particular, the importance of effective graduate-led management was reflected in

\textsuperscript{131} Blackburn, Children’s nurseries UK market report 2009, 78.

\textsuperscript{132} OFSTED, *The impact of the early years foundation stage: a good start* (London: OFSTED, 2011), 4-7.

\textsuperscript{133} Hansard, Parliamentary Answer by Sarah Teather MP, September 14, 2011, c1208W.

\textsuperscript{134} Sammons, Sylva, Melhuish, Siraj-Blatchford, Taggart, Grabbe and Barreau, *Effective pre-school and primary education 3-11 project summary report*, 3-4.
A better beginning

Despite government investment in training, only 7% of the total childcare workforce has post-secondary qualifications. The government’s aspiration is for every nursery to be graduate-led by 2015. Between 2006 and 2010, 7,316 practitioners achieved a degree in early years professional status. But there are an estimated 15,595 day care centres in the UK, meaning the target is at its best no more than 50% achieved.

The real problem lies in the inability of settings to attract and retain high-quality staff. Higher-paid educational staff are related with better quality, as demonstrated through improved child outcomes. Pay for the early years workforce is low. In 2009, the average pay for a qualified nursery nurse was £6.65 per hour. For a manager, average pay was £8.82 per hour. Over half of all childminders earn less than £7,000 per year. Low pay makes childcare particularly vulnerable to staff turnover, especially as the workforce is disproportionately young. Quality can only be enhanced by substantial extra investment. Research by Daycare Trust, the SMF and the IFS found that a high-quality childcare model would require a doubling of staff salaries to attract and retain talent, which would cost a further £9 billion a year.

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139 Blackburn, Children’s nurseries UK market report 2009, 51.


141 Blackburn, Children’s nurseries UK market report 2009, 105.

142 Daycare Trust and TUC, Raising the bar, 9.

143 Blackburn, Children’s nurseries UK market report 2009, 99.

144 Social Market Foundation and Daycare Trust, Quality costs: paying for early childhood education and care (London: Daycare Trust, 2009).
What is telling is that larger staff-child ratios are not necessarily detrimental if the staff member is highly qualified. Across Europe, countries which tend to have better qualified childcare staff also have less strict staff-child ratios than the UK.\textsuperscript{145} The implications are that if settings can attract better qualified staff, there is scope for relaxation of the ratios, and thus greater profitability from expansion.

\textbf{Unsustainable provision}

A significant minority of parents report that they cannot get a childcare place. With tight margins, small changes in demand can have large consequences for service sustainability. The net number of formal childcare places increased substantially between 2002 and 2006, but there were still many closures, accounting for between half and two thirds of new capacity entering the market.\textsuperscript{146} Since 2006-07, the market has contracted, with the number of closures overtaking new entrants. This trend was exacerbated during the most recent recession, with 3,139 nurseries closing in 2009-10.\textsuperscript{147}

This churn in the childcare market may be partially caused by the duplication of supply.\textsuperscript{148} Governments have built new childcare settings – for example, Neighbourhood Nurseries and Sure Start Children’s Centres – which may have taken custom away from existing nurseries and childminders.

This supply problem is exacerbated by inadequate funding from local authorities to deliver the free entitlement. The majority of nurseries provide the free entitlement. Not doing so would put nurseries at a commercial disadvantage. Local Authorities are meant to follow an Early Years Single Funding Formula to guarantee ample funding for providers. But, in 2011, 59\% of nurseries reported

\textsuperscript{145} Eurostat, Reconciliation between work, private and family life in the European Union, 62.
\textsuperscript{146} Blackburn, Children’s nurseries UK market report 2009, 21-24; Hansard, April 18 2006, c575W.
\textsuperscript{147} Hansard, Parliamentary answer by Nick Gibb MP, September 15, 2011, c1305W.
\textsuperscript{148} PriceWaterhouseCoopers, DfES children’s services, 28.
that they do not receive enough money from their local authority to deliver this requirement.¹⁴⁹

For their part, childminder numbers have reduced dramatically over the past decade.¹⁵⁰ Childminders have to battle with misconceptions of being less safe and lower quality.¹⁵¹ But it is likely that inadequate government support is also leading to a reduction in supply. Until recently, childminders had to be a member of an accredited childminding network to deliver the free entitlement, even if they were OFSTED registered. However, not all local authorities fund the maintenance of these networks: only 48% of local authorities have an accredited formal childminding network. As a result, only 15% of childminders offer the free entitlement.¹⁵²

Inadequate funding from local authorities, coupled with volatile demand, often makes childcare provision difficult to sustain.

**Poor flexibility**

The Monday–Friday, 9am-5pm working week is no longer the norm, with 87% of parents working atypical hours, including in the early morning, late evening, overnight or during the weekend.¹⁵³ The sector is currently too unresponsive to the needs of parents who need to work atypical hours. A quarter of all parents say they cannot find childcare after 6pm and three in ten lone parents report they cannot find childcare at the weekends.¹⁵⁴ In fact, since lower income parents are more likely to be concentrated in jobs

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¹⁴⁹ Philip Blackburn, Presentation to NDNA conference 2011


¹⁵¹ Qualitative research undertaken by Daycare Trust in autumn 2010 found that “some parents…were uneasy using childminders, feeling they could trust group settings as it had checks and balances.” See Rosanna Singler, *Open all hours? Flexible childcare in the 24/7 era* (London: Daycare Trust, 2011), 23.


¹⁵⁴ PricewaterhouseCoopers, *DFES Children’s Services*. 

demanding atypical working hours, it is with these parents that the need for flexible provision is most acute.\footnote{55}{J Statham and A Mooney, *Childcare services at atypical times* (York: The Policy Press, 2003).}

Various reasons can be given for why formal providers are not able to meet this demand. It may be because demand for flexible provision is insufficient or fluctuates, and thus it is financially unviable to offer on a permanent basis. Furthermore, the free entitlement can only currently be accessed between 8am and 6pm, Monday-Friday, so nurseries cannot use their subsidy to fund more atypical hours. Although childminders typically work longer hours than day care centre staff, they may be unable to offer complete flexibility, since they may have other commitments during atypical times.

In any event, flexibility is expensive because of fluctuating staff-child ratios and administration costs.\footnote{56}{Declan Gaffney, “Child poverty, childcare provision and parental employment: lessons from London”.} Staff-child ratios are costly to maintain if children are starting at different points during the day. Providers would have to pay their staff more to attract the workers willing to work non-standard hours.\footnote{57}{Statham and Mooney, *Childcare services at atypical times*.} As Jane Lewis, Professor of Social Policy at the LSE, notes: “Private daycare providers tend to restrict their operations to the core hours...because it is too expensive to open for longer.”\footnote{58}{Jane Lewis, “Childcare policies and the politics of choice”, *The political quarterly*, 79:4 (2008), 503.}

Childcare settings face tight financial circumstances, and cannot respond to the demand for flexibility at prices parents are able to pay.

**Conclusion**

This chapter has identified that constraints play a major role in the low usage of formal childcare. For many parents it is a choice. But a significant minority face information, supply, price and credit constraints.
All of these constraints are ultimately caused by a lack of money flowing into the sector, due to the high costs parents face. As a result, many children are still missing out on experiencing high-quality childcare, and many parents – especially mothers – cannot afford to work. This is bad for social justice, gender equity and social mobility.

It has been shown that extra revenue into the sector is desperately needed to raise the quality, availability and flexibility of childcare. Improving the affordability of childcare would support this. This not only enables more parents to take up formal childcare, but it bolsters demand and profitability for the sector, allowing providers to invest in quality, flexibility and availability. Even more parents would then be able to take up formal childcare.

To increase the flow of revenue, we need to make formal childcare more affordable and hence bolster demand. Improving affordability is the key measure to strengthen the formal childcare market – bringing in parents who currently do not use childcare, and those who use informal childcare – so the private and public benefits of formal childcare can be realised by all parents. The state, as a funder as well as beneficiary of formal childcare, has an interest in supporting this.

But government is currently unwilling to increase its spending in this area. Creative policy-making is needed to devise credible solutions to the affordability problem, especially when public money in the current fiscal environment is limited.

If Government is cutting direct funding for childcare, it needs to refocus its efforts on policies that help parents fund their own childcare in a more manageable way. This is the focus of Chapter 3.
CHAPTER 3: EASING THE COSTS

Chapter 2 demonstrated that the childcare market doesn’t work well for many parents or providers. The principal cause is the low affordability of formal childcare for parents. As a result, providers struggle to ensure their services are sustainable and to fund investments in service improvements. Many parents therefore face childcare of poor quality, low sustainability and limited flexibility, which – in addition to high costs – also lead to low take-up.

One obvious solution to this affordability problem is to increase public subsidy. This may be the solution in the future, but it is not a viable option at the moment, given the state of the public finances. This chapter explores other ways around the affordability problem that do not create additional burdens for parents or the Exchequer. The chapter argues that parents should be helped to smooth their childcare expenditure over time by accessing public assistance for their upfront private childcare costs, paid for through subsequent income-contingent contributions.

Two drivers of childcare affordability

There are two ways to help parents afford the high and rising costs of formal childcare. The first is to increase public expenditure on direct financial support. Indeed, there is a strong case for better funding given all the benefits outlined in Chapter 1. Nonetheless, at the moment, there is no public money spare. Given the long-term pressures on the public finances, this seems unlikely to change anytime soon.159

But affordability is not only a matter of the cost of a service: it can also be influenced by credit constraints. Parents may understand the benefits and be happy to pay the ticket price of childcare but be unable to find the money to do so up-front. If

government cannot afford to increase childcare funding directly, the second option is therefore to help parents manage these growing private costs by smoothing them over time. This would allow them to pay their costs further along the life-cycle, when the private benefits from maintaining closer attachment to the labour market actually accrue. This principle is used widely to even out the high costs of expensive but vital goods and services, thus rendering them affordable at the point of purchase.

Cost smoothing
Cost smoothing – spreading large and lumpy expenditures over a longer period of time – can be done privately, or facilitated by government. It can work in two ways. First, individuals can save in advance to pay for something later. Paying pension contributions from a salary, for example, is a way of saving enough each month to eventually cover the high costs of retirement. Second, individuals can borrow money to pay for something and repay in the future. An example of this is people taking out mortgages to afford the expense of purchasing a house.

An interesting example of government supporting people to smooth costs is the student finance system. Many students, and their parents, are not in a position to pay the high costs of accessing higher education – especially as fees from 2012 will now be charged up to a maximum of £9,000 per year. But student loans make the costs of a degree more manageable and ensure that people can pay for their degree when they are in a better position to do so.

How effective are policies to ease credit constraints? Recent evidence suggests that the positive impact on take-up of easing
the credit constraints on would-be students almost entirely offsets
the negative impact of higher tuition fees. Since the introduction
of these loans and higher fees in the 2004 Higher Education Act,
participation in HE has increased among young people from
the lowest socio-economic groups. And by coupling higher
fees with generous loans, the level of student demand remained
broadly similar. By contrast, in Canada, when university fees were
liberalised in the early 1990s with no attendant increase in student
loans, access suffered. Yet it bounced back once the student loans
facility was expanded shortly thereafter.

All of this evidence suggests that in areas where people
recognise the potential benefits of making a costly investment,
such as formal childcare and higher education, it is often credit
constraints rather than the high up-front cost per se that create a
bigger affordability problem. This is something that government
can address costlessly, with a potentially large impact on take-up.

Box 3.1. How the student finance system works

Government gives all UK and EEA (European Economic Area)
dergaders studying at English and Welsh universities the
opportunity to take out a loan which covers the full costs of their tuition.
In addition, students can take out loans to cover maintenance costs.

Graduates repay tuition fee loans through the PAYE system via the
Student Loans Company on an income-contingent basis. Graduates
repay these loans at 9% of monthly earnings on income above £21,000
per year until they have repaid the loan with interest, or for a maximum
period of 30 years. Variable interest rates apply: those earning below
the repayment threshold are charged a zero real rate of interest. Those
earnings between £21,000 and £41,000 face a higher interest rate, up

161 Anna Fazackerley and Julian Chant, More Fees Please? The future of university fees for undergraduate students

162 Lorraine Dearden, Emilia Fitzsimons, Gill Wyness, The impact of the 2006-07 HE finance reforms on HE
participation” (London: Department for Business, Innovation and Skills, 2010).

to 3% above inflation. Those on the highest salaries pay 3% above inflation, an interest rate which is above the cost of borrowing for government.\footnote{DirectGov, “How will I repay these costs?”, http://studentfinance-yourfuture.direct.gov.uk/repay.}

Aside from the debate around whether the HE funding system has an appropriate balance of public and private contributions, there are many advantages to this system of student finance – for students, providers and government.

Students benefit from being able to access university education free at the point of use, ensuring affordability to all institutions no matter what they charge. Left to borrow from private sources, such as banks, all students would face much higher interest rates and loan repayment would not be income-contingent, meaning they potentially face explosive levels of debt. In fact, some may be unable to access credit at all. In a public loans system, government becomes the lender and bears the risk of non-repayment from low lifetime earners, ensuring all can access the necessary credit.

The student loans system also means more money flowing into the sector, ensuring universities are properly funded to deliver higher quality, sustainable higher education despite rising student numbers and limited public funding.\footnote{When government cut direct funding to universities by £2.9 billion in the 2010 Spending Review, they at the same time allowed university to raise their fees to a maximum of £3,000 a year to £9,000 a year. The Government noted: “We estimate that there will be a cash increase in funding for higher education of around ten per cent by 2014-2015”. See Department for Business, Innovation and Skills, Higher education: students at the heart of the system (Norwich: HMSO, 2011), 5. This comes on top of an impressive rise in revenue for the HE sector over the past decade, supported by the introduction of tuition fees and the accompanying loans: in 1998-99, total revenue was £12 billion. By 2007-8, it was £23 billion. See Fazackerley and Chant, More Fess Please? The future of university fees for undergraduate students, 5.}

For government, the benefit is enabling HE – which brings considerable public benefits – to expand without applying unsustainable pressure on the public finances. There are, however, costs to the Exchequer because of the low interest rate on low-earning graduates and debt forgiveness for lower earners after 30 years. This is called the Resource Allocation Budgeting (RAB) costs. As tuition fees have risen, this has increased the RAB costs. The government forecasts that the RAB costs in the new system, where most universities are clustering their fees at the top end of £9,000 per annum, will be about...
30p for every £1 lent.\textsuperscript{166} However, the system remains cheaper than a simple HE subsidy as a majority of the outlay is recouped through student repayments.

The student loans model, first adopted to help people access education in HE, is already being applied – to a limited extent – to the Further Education (FE) sector.\textsuperscript{167} With appropriate adaptations, it offers the basis for an additional system for supporting parents with their private contributions to formal childcare costs.

Though starting from different points, there are now many similarities between the way HE and childcare are funded. Funding consists of a large component of private contributions, with a smaller but important element of public subsidy. This is different to other parts of the education system such as schools and FE, which are predominantly publicly funded with only a small amount of private contributions. This is despite the benefits from FE being relatively ambiguous, compared to those from childcare and HE.\textsuperscript{168}

However, although high private contributions are common to HE and childcare, government only provides a system for smoothing costs to those accessing HE. Since a large body or recent research has shown how much more essential high-quality formal childcare is to both efficiency and equity goals of government, this situation is perverse.

\begin{itemize}
\item \textsuperscript{166} Department for Business, Innovation and Skills, \textit{Higher education: students at the heart of the system}, 15.
\item \textsuperscript{167} Announced in the Coalition Government’s Adult Skills White Paper, from 2013/14, students over the age of 24 who are taking a level 2 or level 3 qualification, or those under the age of 24 who are re-training with a level 2 or 3 qualification, will be able to access an income-contingent loan to pay for their training. Those under the age of 24 who are taking a level 2 or 3 qualification for the first time have their course fully funded. See Department for Business, Innovation and Skills, \textit{Skills for Sustainable Growth} (London: HMSO, 2010).
\end{itemize}
The student finance model is a publicly backed (and publicly subsidised) system of repayment where the debt has been incurred for a purpose that combines private benefits (higher earnings, generally) and public benefits (more skilled workers, economic growth and other social benefits). This would be applicable to cost smoothing for childcare costs too. In fact, with formal childcare, the public benefits are much greater.

While there are similarities between HE and childcare, there are important differences:

1. The introduction of a public loans system for childcare is surrounded by very different politics. The recent controversy over HE funding mostly relates to the tripling of tuition fees, not the mechanism for repaying tuition fee loans. Protestors have attacked the dramatic rise in private contributions and the fall in public contributions. In contrast, a similar system for childcare is not being introduced in response to a policy change that enables the tripling of fees. Rather, it is being introduced to better support those parents struggling to meet existing fees as a supplement to existing public funding.

2. The amount of loan which can be distributed to each student is limited by the cap on tuition fees determined by government. However, the government does not determine the prices for childcare settings.

**A National Childcare Contribution Scheme (NCCS)**

Currently, parents must pay the private costs of childcare as they use it. There is no public support available to help them smooth their costs over time. The SMF proposes a National Childcare Contribution Scheme (NCCS) to fill that gap. Similar to the student finance model, under the scheme the government would provide upfront financial support for childcare which parents pay for through subsequent income-contingent contributions.
Close attachment to the labour market brings higher earnings for parents. But the affordability of childcare is deteriorating fast. Accessing commercial loans from banks, currently, is not feasible for many parents. As Professor James Walker explains, “credit market imperfections may prevent women in low-income families from borrowing against future earnings to finance childcare and break away from welfare dependence”. This is because to lend profitably, banks would have to charge high interest rates to cover the high costs of commercial capital and the risky nature of lending in this market. At such high rates, parents are right to steer clear. Indeed, among lower earners, the gains from attachment to the labour market may be low or unclear. Job progression and security is less certain.

The government’s balance sheet could be used to resolve these problems. First, a public system available to all working parents would enable everyone to access adequate credit at a low interest rate. This is because the government can borrow to fund the loans at a much lower rate than a commercial lender. In addition, the tax system can be used to collect the money cheaply, securely and efficiently, further reducing costs.

Most significantly, a public system enables contributions to be made on an income-contingent basis. This eliminates any risk to the parent of not being able to pay: parents do not have to worry about not being able to afford to make contributions.

Box 3.2. Comparing the SMF model with other cost smoothing mechanisms for childcare

It is worth noting that there are already creative schemes to help parents smooth their childcare costs. Some employers offer their employees interest-free loans to meet upfront fees or a deposit associated with securing a place at a childcare setting.

Some local authorities, such as Westminster and Brighton, enable parents to pay upfront fees for childcare over time by the local authority providing a guarantee to providers that they will pay any fees that are not met.

In Hillingdon, London, there is currently a trial of childcare loans to help parents in the area afford upfront costs. A credit union provides a low-interest loan to parents to help them pay the upfront costs, which typically range from £300-£500.171 A trial is currently taking place of this “Childcare Advance” scheme in Hillingdon and is being managed by Daycare Trust.

The proposed NCCS can learn from the forthcoming results of this trial. But the NCCS would be new and different to this trial because it would:

- Help with all childcare costs, not just upfront fees.
- Be a national scheme, not a local one.
- Would use the government’s balance sheet, rather than that of credit unions or other financial providers.
- Would use the tax system to collect money from parents.
- See parents pay on an income-contingent basis, meaning it is not a loan.

The advantages of using the government’s balance sheet and using the tax system to collect payments is that it lowers the costs of borrowing required to finance the scheme, both because the government can borrow much more cheaply than other commercial lenders, and because the collection mechanism is highly cost effective. This benefit can be passed on to the borrowers, who can thus face a much lower interest rate than would be feasible in a commercial scheme.

The advantage of a national scheme is that it would also enable parents to use their public financial support on paying for both upfront and ongoing fees. In addition, a national scheme would be more likely to avoid adverse selection where some social groups are over-represented in the scheme, which could threaten the viability of the scheme.

The SMF is proposing that parents should be able to access additional public support for childcare costs through the NCCS. Figure 3.1 shows a basic outline of how this new system would work.

171 Friends Provident Foundation, Help with upfront childcare costs, 2.
Parents would make contributions to pay for their assistance through the scheme on an income-contingent basis through the PAYE scheme and collected by a similar agency to the Student Loans Company.

Figure 3.1. How NCCS would work

1. Money provided by government through the NCCS to pay for childcare.

2. Parents pay providers using money from NCCS. This is in addition to existing government support.

3. Parents make income-contingent contributions. Like with student loans, parents pay contributions on a monthly basis only when they are earning above a certain amount. They pay at a contribution rate set by government through the PAYE system until they have paid the full costs or for a maximum period. An interest rate is applied to their contributions.

The effect of the NCCS is to smooth the high costs of childcare over a long period of time. Parents will have to pay for longer, but their monthly payment for childcare will be much lower than in current circumstances. This is illustrated in Figure 3.2.

Figure 3.2. Profile of childcare costs for an example household
As parents will pay less each month for their childcare, this will increase their disposable income, easing the financial pressures many parents face when children are young.

Some graduates may be repaying their student loan (9% of their salary above £21,000) when they access the nCCS. This means they will have two payments per month, constituting a much higher proportion of their salary. Nevertheless, doing this is still better than repaying the student loan and paying childcare costs in full at the point of use, a situation likely to remove any immediate financial benefit to employment.

**Box 3.3. Is this a loan or a tax? Or something else?**

Key attributes of a loan are that the borrower will pay at least in full what they initially received and that they repay whatever their financial circumstances. The NCCS advocated does not share these characteristics and therefore cannot be called a loan.

This is because parents only contribute when they are in work and earning above a certain amount. In addition, low-earning parents will not pay in full what they initially received. These characteristics mean this scheme operates more like a tax. As Professor Nick Barr says of student loans, which this model is based on: “What parent has sleepless nights over their child’s future tax bills?”

But, the scheme is dissimilar to a tax because it stops after a certain period and is therefore not unlimited. In reality, the distinction between a loan scheme and a tax is not discrete: both lie on the same continuum. But the subsequent contributions of parents in this scheme can be best described as a hybrid between a tax and a loan, hence why we choose a new name called the National Childcare Contribution Scheme.

When communicating this new idea to parents, it will be important to emphasise that this policy is very different to a loan to quash misplaced fears about debt. In fact, this new support mechanism could reduce susceptibility to debt. This is because paying

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for childcare at the moment often represents a substantial proportion of household income, thereby reducing disposable income and increasing the likelihood of debt. This new scheme substantially reduces monthly payments for childcare. Moreover, those parents experiencing particularly low incomes for a period of time will not have to pay anything towards their childcare costs as they will be below the income threshold for contributions.

Parental contributions to pay for what they initially received through the NCCS would depend on parameters set by the government: above a given income threshold, at a certain contribution rate, at a certain interest rate and with a maximum number of years contributing.

As with student loans, any shortfall from a failure to pay in full what was initially received will have to be funded. Government subsidises this shortfall with student loans. In this NCCS, on the other hand, it will be done by applying a higher interest rate on parents. So, in effect, any risks of non-payment in the scheme are being shared communally across the cohort of parents.

This is an imaginative use of the government’s balance sheet to fund a public service. It uses public finance, but because it is recovered directly from individuals through subsequent contributions, it can be considered a financial transaction, hence it would not affect the headline debt-to-GDP ratio. Underpayment by some parents would be recovered through a higher interest rates on the amount drawn down by parents. This is why the scheme is costless to the government, and should be particularly welcomed by the present Coalition Government in this period of falling state spending.

The next chapter will describe in detail the rules around eligibility, distribution and parental contributions in the NCCS to achieve key public policy goals.
CHAPTER 4: DESIGNING THE SOLUTION

Chapter 3 introduced the idea of cost smoothing for childcare costs. This could improve affordability and thicken demand, thereby improving the functioning of the childcare market.

However, there are questions about design that will have to be answered to ensure that the National Childcare Contribution Scheme (NCCS) meets desired objectives. This chapter explores different options for the eligibility, distribution and parental contributions in the NCCS to achieve these objectives. These objectives include optimal take-up, especially for those struggling to meet the costs of formal childcare; progressivity, with low-income parents contributing less for their childcare through the NCCS than higher-income parents; and broad fiscal neutrality, so the government does not incur additional costs.

Designing the NCCS

There are three sets of design issues that need to be considered:

- **Eligibility.** The characteristics of the families and providers who will be able to take advantage of financial assistance from the NCCS.

- **Distribution.** When and in what form families receive financial assistance from government, and to which parent it is paid.

- **Contributions.** The way parental contributions are collected for different families: this includes the interest rate, the contribution income threshold, contribution rate and maximum contribution period.

Each of these attributes of the NCCS needs to be constructed to achieve three objectives. These draw on some of the observations of earlier chapters. In particular, that formal childcare is currently under-consumed relative to public and private benefits available, and government is unwilling to spend any more money on subsidising it.
• **Fiscal neutrality.** The scheme must not create additional costs for government.

• **Progressivity.** Parents on higher incomes should pay more than parents on lower incomes through the NCCS.

• **Optimal take-up.** Take-up of formal childcare is currently sub-optimal from a public and private perspective. The ultimate objective is to increase consumption of high-quality formal childcare.

**Parental contributions**

This section will explore the parameters for the parental contributions in the NCCS. The parameters of contribution for parents include:

• **The interest rate.** The interest rate on the amount drawn down.

• **Contribution income threshold.** The income level at which parents begin contributing.

• **Contribution rate.** The amount paid monthly as a proportion of the parent’s salary above the contribution income threshold.

• **Maximum contribution period.** The maximum number of years parents pay their contributions.

There are two main ways in which the system could cost the exchequer money. First, by applying an interest rate to parents which is below the cost of borrowing to government. Second, by government paying the shortfall between what was distributed to parents and collected from them because some parents reached the maximum contribution period before contributing in full the amount they initially received. By increasing the contribution income threshold and reducing the contribution rate it is likely that more parents will reach the maximum contribution period without having paid in full what they initially received from government.

Making these parameters more generous for parents – for instance, by having a relatively short maximum contribution period
and a low interest rate – will make the scheme more progressive since a greater number of lower earners will not pay in full what they initially received. Further, since lower-income parents may feel the amount they will have to contribute is quite low, it will increase the probability of higher take-up. However, the generosity of the parameters increases the cost to government. There is consequently a trade-off with the objective of fiscal neutrality.

Conversely, if the parameters are less generous – a higher interest rate and long contribution period – this could in principle make the policy revenue neutral, even a revenue raiser, but it is likely to undermine the goals of progressivity and optimal take-up. This shows that there is a careful balance which needs to be achieved between all the key tests of fiscal neutrality, progressivity and optimal take-up.

Nonetheless, the key aim of fiscal neutrality is dictated by present circumstances, where the Government is unwilling to invest new public money when deficit reduction is underway. In future, the system parameters could be altered to provide a net public subsidy through the NCCS. Since a more progressive system may lead to higher take-up, this is something that should be seriously contemplated by future governments. For the purposes of this report, we consider ways of developing only a fiscally neutral system. This means the system is self-financing.

Doing so means ensuring the parameters in the system are set so that the government does not incur any net costs from the scheme. This could be done by either:

- **Extended contribution period.** An extended contribution period could be applied to higher earners to compensate for a limited contribution period after which contributions cease, which lower earners benefit from.173

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173 An extended repayment period for higher earning graduates was advocated by Professor Nicholas Barr in Nicholas Barr, Designing student loans to protect low earners (London: Policy Exchange, 2010).
• **High interest rate.** A high interest rate which raises revenue for HM Treasury could be applied to the amount drawn down by parents and the profit could subsidise the inevitable write-offs of outstanding balances associated with a generous maximum contribution period.

Our model will achieve fiscal neutrality by applying a higher interest rate to subsidise low-earning parents not paying in full. Striking the right balance between the interest rate and the maximum contribution period is key to achieving progressivity and optimal take-up. Chapter 5 will describe modelling and polling conducted for this paper to discover which set of contribution parameters best achieves this.

It is worth highlighting that the introduction of the NCCS will involve administrative costs. This will include communicating the policy to parents, practitioners and employers. It will also include the establishment and maintenance of a distribution and collection body. But the existing Student Loans Company could be utilised and expanded to cut down on overheads. So it is assumed these costs will be modest. In fact, the NCCS should have the positive dynamic effect of increasing parental employment: so there should be greater tax and NI revenue. Crucially however, neither of these costs or benefits are accounted for in this paper.

**Eligibility**

Eligibility criteria need to be determined for:

• **Families** – whether their eligibility for accessing the scheme should be contingent on household income level, the age of their children and the total amount of assistance received.
• **Settings** – whether their eligibility for receiving financial support should be contingent on the type and quality of the setting used.
Eligibility for families
Universal vs. means-tested

There are persuasive arguments to suggest that the scheme should be universally available to all families using formal childcare, regardless of income.

Supporting all families, whatever their income, to access childcare could reduce the early years attainment gap. This is because evidence shows that mixed early years settings produce better outcomes for poorer children.174

There is evidence to suggest universal cash transfers have a higher take-up than targeted cash transfers. For instance, in the UK, in 2008-09, Child Benefit had a higher take-up (96%) than the Child Tax Credit (80%) and Working Tax Credit (58%).175 With pensions, roughly one-third of eligible pensioners do not claim the means-tested Pension Credit and half of eligible pensioners do not take up Council Tax Benefit.176 The reasons for low take-up of targeted benefits includes stigma, lack of awareness and complexity.177 This shows universal support systems are likely to be more successful than targeted ones in reaching out to families who most need support.

In fact, if the scheme were universally available, take-up would likely increase not only for lower-income families, but for those with higher-incomes too. Since childcare costs are very high, many families – right up the income scale – struggle with childcare costs. Means-testing the eligibility for the scheme risks

174 Pam Sammonds, “Does pre-school make a difference?”, in Kathy Sylva, Edward Melhuish, Pam Sammonds, Iram Siraj-Blatchford and Brenda Taggart (eds), Early childhood matters: evidence from the effective pre-school and primary education project (London: Routledge, 2010), 94.
176 Tim Horton and James Gregory, The solidarity society: why we can afford to end poverty, and how to do it with public support (London: Fabian Society, 2009), 137.
applying an arbitrary threshold, denying more affluent families crucial support.

Making cash transfers universal tends to a) raise the costs to government by increasing the number of users or b) reduce the support existing claimants can receive to control costs. With this proposed system, however, these two consequences need not happen. This is because higher-income groups will almost all subsequently contribute what they received in full before the maximum contribution period is reached.

In fact, it may be the case that allowing higher-income groups to use the scheme may improve the cost-effectiveness of the policy. As described above, offering support to higher income groups with an appropriate interest rate above the government’s cost of borrowing can allow these better-off contributors to subsidise those who later can’t pay in full what they initially received.

Distributing to working or non-working parents?
A scheme which is available universally to families at all income levels best achieves fiscal neutrality, progressivity and optimal take-up. But should the scheme be available to all families, regardless of whether they are working or not?

The incidence of poverty is highest in workless households. Making the scheme available to workless families could increase the cognitive and social development of deprived children, leading to greater long-term public benefit.

However, absence from the labour market is associated with poorer long-term employment prospects. Therefore, it is likely that these parents will have a higher likelihood of not paying in full what they initially received, adding costs onto the scheme.

In line with eligibility for the childcare element of the Working
Tax Credit, it is proposed that all adults in a household would need to be in work to be eligible for the NCCS. This would help address the credit constraints many families face when moving into employment, and sharpen work incentives. Indeed, it could dramatically improve the financial gain to work for second earners and lone parents, assisting other government reforms in this direction such as the Universal Credit. With more parents in work and therefore contributing to the scheme, this reduces the chances of parents not making sufficient contributions, lowering the overall cost of the system.

Age of children
Consumption and costs of childcare are higher in the early years of a child’s life, particularly between the ages of one and five. This is the period after maternity and paternity leave ends and school begins.

Nonetheless, demand for childcare does not stop at the age of five. Many parents need childcare before and after school, and during school holidays and in-service days. However, it could pose cost problems if support is requested for childcare for older children on top of support that have been accessed for the same child when they were younger, or for different children in the same family who are younger. This would raise the total amount available to each family, increasing the likelihood of a parent reaching the maximum contribution period without paying in full what they initially received and hence adding to the costs of the scheme.

For this reason, it is proposed that support through the scheme will only be available for families with children under school age.

Total amount accessed
If families could access an unlimited amount, the costs of the scheme could get out of control. This is because it could increase the number of parents who do not pay in full before the maximum contribution period.

Clearly, any maximum limit government imposes on the amount parents can access for childcare will have to be carefully considered. If the limit is too high, it could endanger fiscal neutrality. If the cap is too low, the scheme will have little impact in terms of its other goals.

**Box 4.1. Developing a mature market**
Some have argued that further financial support for parents to help them meet their childcare costs could drive up the prices providers charge. Even if there was an initial increase, this would only be a short-term effect and would reflect the need for providers to invest in higher quality and more flexibility. But prices will be kept in check for several reasons:

1. The financial support accessed actually represents people’s own money, since they have to contribute towards paying it in the long-term. It is not a government subsidy. This will make parents price-sensitive.
2. A mature market with liberalised supply will keep prices in check.
3. Greater demand will allow the raising of quality, which could reduce the need for stringent child: staff ratios. This will make nurseries more profitable, and thus reduce the need to escalate prices.

**Eligibility for settings**
Formal or informal childcare?
Parents will only be able to use their support through the NCCS on formal childcare providers. Allowing parents to use their support on informal providers poses serious challenges. This is why parents cannot use their childcare vouchers or the childcare element of the Working Tax Credit on informal providers. As the Department for Education has
recently outlined: “While we recognise the services grandparents and other family members provide we believe paying for, or regulating, such childcare arrangements would be inappropriate”.

Ensuring money is spent on high-quality provision
A central aim of the scheme is to increase optimal take-up of high-quality formal childcare in particular.

The government’s facilitation of extra revenue into the childcare sector will help raise quality, enabling providers to invest in training, hiring and retaining good-quality staff. But it has two options in how the financial support given is distributed: it can allow parents to spend their assistance on any formal childcare setting or only those which are deemed high-quality.

The first approach trusts the choices of parents. Under such a scheme, arming parents with adequate information about service quality would be fundamentally important. Trusting parents to make choices, based on quality, would ensure money flows into high-quality settings that would be able to expand.

However, quality is not the only criteria on which parents choose childcare providers: convenience and cost are often given greater weight in parental choices. Therefore, there is a case for Government to prioritise quality provision, by stipulating that only high-quality providers are eligible to receive the support through the scheme. Quality could be determined by the grading obtained during an OFSTED inspection. So, only providers with an inspection category of good or above would be entitled to support through the scheme. Indeed, local authorities currently only distribute the free entitlement money to settings which meet certain criteria on quality, including an OFSTED inspection.

179 Department for Education and Department for Health, Supporting families in the foundation years, 40.
The advantage of a minimum threshold on quality is that it would guarantee that high-quality provision would expand at the expense of low-quality provision. Before this scheme was implemented, the strength of the minimum criteria for setting eligibility could be tested in a pilot.

**Distribution of financial support through the NCCS**

Having explored the issues that government policy-makers need to address around the eligibility for and parental contributions within the NCCS, this section will examine the distribution of the financial support through the NCCS: in what form families should receive their support and how frequently should they receive it?

**Cash transfer or a voucher?**

With regard to how parents receive their financial support, there are two possible options: as a cash transfer or a voucher. An example of a cash transfer is the childcare element of the Working Tax Credit. Here, a parent registers with HMRC the name of the formal childcare setting they are using and the amount it costs. HMRC then calculates their eligible award, based on the costs submitted and the income the claimant received in the previous year, and transfers this to their account on a weekly basis. Parents then pay their childcare providers.

There is potential leakage with this system. These costs are calculated on an annualised basis. So there is a real danger of overpayment if a parent’s circumstances change for the better within that year, and they do not report it, wittingly or unwittingly. Only a proportion of these overpayments are likely to be recovered by HMRC. 180

Anecdotal evidence from providers suggests that some parents are registering for a place, claiming the money for the childcare element of the Working Tax Credit, but then not paying the

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provider. This means the provider, already operating on tight profit margins, loses money, since they have to keep the reserved place, but losing revenue if it is not occupied.  

A voucher scheme, by contrast, is a closed-loop system where payment would go direct from government to the accredited formal childcare provider, reducing instances of leakage. Crucially however, where the support is spent, and the amount accessed, is still controlled by the parent in a voucher system.

The voucher could take on several forms. It could be electronic money which is controlled by parents but paid from the NCCS administrative body direct to the childcare setting. This is similar to the student loans model. The Student Loans Company pays the tuition fee loans direct to universities. Or it could take the form of a smart card with parents using the card to pay the providers direct. This report recommends this latter form.

**Frequency of distribution**

A parent should have control over the amount, and frequency, of support. This will typically follow when payment for fees is due. If support were provided through a voucher system, it would be impossible for a parent to access more than is required to pay in fees. The closed-loop system would ensure that payment to providers happens at the point of use.

**Who should be liable for contributions?**

The whole family is the beneficiary of the financial support. But with whom the liability for the subsequent contributions rest raises important questions. With a lone parent, it is clear from whom subsequent contributions are due. In a couple, which partner should assume the liability is a matter of debate.

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181 The incidence of this kind of behaviour, and thus the size of the impact, is unknown.
It is proposed that the higher earner becomes liable for the contributions. Having the higher earner as the named contributor would reduce the costs of the system. This is because government is more likely to recover in full what they initially distributed from higher earners.

With a couple, what is very interesting about making the higher earner liable for the contributions is that the main earner is typically the man. Currently, it is mainly mothers who have to make the decision on whether to return to work or not based on the affordability of childcare. It is the mother who pays in lost earnings if she stays out of the labour market. Making fathers assume the costs of childcare from their future salary has interesting implications for traditional gender roles within the family. It removes the disincentives to work faced by mothers out of whose income childcare costs often come. Much of the costs of raising a child are now transferred to a father away from a mother, in a typical case.

This arrangement also ensures that in the case of family break-up, it is the parent with greatest financial means who retains the liability.

**Conclusion**

This chapter has discussed the implications for the scheme for the rules around contributions, eligibility and distribution, and how they can meet key objectives of fiscal neutrality, progressivity and optimal take-up.

On eligibility, it has been argued that government make the scheme universally available to households where all parents are working. How much parents can receive and the formal childcare settings which can benefit from support is a decision that should be made by government, reflecting on the arguments in this chapter.
On distribution, we propose that support through the scheme be distributed through a voucher where parents control payment through a smart card. The frequency of the distribution would thus reflect when childcare fees are due. There should be a presumption that the higher earner in a household is liable for contributions in order to minimise exchequer costs and increased gender fairness.

On contributions, government will need to set parameters which meet the key tests of fiscal neutrality, progressivity and optimal take-up. The policy will be funded in a self-contained fashion, by applying an interest rate to the amount drawn down by parents above the government’s cost of borrowing to offset those few lower earners who reach the maximum contribution period without paying what they initially received in full. Chapter 5 presents the results of modelling to discover viable combinations of parameters by which under-payers are balanced by the extras payments made by higher-income families. The attractiveness of the agreed model was then tested through the polling of parents.
CHAPTER 5: ROAD-TESTING THE IDEA

So far this report has made the theoretical case for a National Childcare Contribution Scheme (NCCS). It has argued that the NCCS should be fiscally neutral, progressive and increase take-up of formal childcare.

There are clearly tensions between these objectives, as discussed in detail in Chapter 4. The more generous a scheme is to parents, the less likely it is to be fiscally neutral. The challenge is to find the balance that works for parents whatever their circumstances and preferences, but also works for taxpayers.

This chapter illustrates the work conducted by the SMF to do just that. First, modelling was conducted to identify the sets of design parameters that could result in a fiscally neutral scheme, based on plausible assumptions about the current and future earnings of those taking up the scheme. This demonstrated that the policy objective of fiscal neutrality was theoretically possible.

Second, having identified parameters that could – in theory – meet the objective of fiscal neutrality, a representative poll was conducted to find out if such a scheme would be at all attractive to parents. The findings demonstrate that there is significant interest among parents of all incomes; the findings indicate the kinds of design features that are important to parents; and the findings suggest ways in which availability of the scheme might change parents’ use of childcare.

Modelling

There are any number of permutations for the eligibility, distribution and parental contributions within the NCCS. These were set out in Chapter 4. Together, these might be called policy design parameters. Some of the parameters for eligibility and distribution have already been determined in Chapter 4. But some parameters
are variable and still need to be identified. Those parameters that can be changed for the modelling are summarised in Box 5.1.

**Box 5.1. Policy design parameters relevant for modelling**

**Eligibility and distribution**
- **Eligible income.** Income of main earner at which households can access the scheme.
- **Maximum support.** Maximum support can they receive.

**Contributions**
- **The interest rate.** An interest rate to the amount drawn down by parents.
- **Contribution income threshold.** The income level at which a parent begins contributing.
- **Contribution rate.** The amount paid monthly as a proportion of the parent’s salary above the contribution income threshold.
- **Maximum contribution period.** The maximum number of years a parent contributes to the NCCS if the amount they initially received has not been paid in full.

Choices made on these sets of parameters have implications for take up of the scheme by families at different points on the income scale. How take-up responds then has a feedback effect on what parameters make for a fiscally neutral policy. The modelling sought to understand the sets of policy design parameters that would result in a fiscally neutral scheme based on the assumption that take-up would be uniform among working families in all income groups. Evidence from subsequent polling supported the idea that interest in the scheme is similar across income groups.

The main modelling challenge was to understand the likely subsequent earnings profile of the cohort of parents who take up the scheme, including estimating the likely increases in their
earnings over time (see Box 5.2). This is critical to understanding the level and the distribution of contributions that parents will make for a given set of design parameters, and therefore the consequences both for progressivity and fiscal neutrality.

To do this the model started with a cross-sectional cohort of households with children aged three extracted from the Family Resources Survey. This group was chosen to reflect the kind of families who might face the greatest childcare needs. Based on the design criteria set out in Chapter 4, we then limited this group to households that would be eligible for the scheme – namely those in which all adults were in work – and then focused on the highest wage earner in each household, since these are the people who would be paying the subsequent contributions.

Crucially, the chosen cohort was not intended to help establish the scale of the amount that might be distributed, but instead to get a representative cross-section of claimant families on which to balance the costs of the scheme. Clearly not all families with a three year old would take up the support, while families with children of other ages might use the scheme. But any set of policy design parameters that balances the cost of over- and under-payers for the chosen sample should do so for any other group of claimants, provided that NCCS take-up is uncorrelated with income. So our sample of families with a three year old can act as a representation of any one cohort of claimants.

Having established an income distribution of eligible parents the next challenge was to establish how their earnings are likely to grow over time, since this has implications for the extent of the contributions the cohort will ultimately make under this income contingent system. This projected increase was composed of two effects – growth in average earnings (assumed to be 2% per annum in real terms), and additional increases in pay related to workplace seniority. These were calculated separately by age and sex, drawing
on wage growth estimates at years zero, five and ten from the literature.\textsuperscript{182} Wage growth in other years was derived from a linear extrapolation of these point estimates. Earnings growth after ten years was assumed to be equal to average earnings growth only.

This estimate of the future earnings profile of the eligible cohort provided the base of information needed to test different variations of the policy. We lowered these different variations of the policy onto the model to understand the consequences of each variation for fiscal neutrality.

Before setting out the results of that modelling, there are a few important points to note:

- First, fiscal neutrality here is given a narrow meaning. Only the relationship between the amount of assistance provided and the level of subsequent contributions made is considered, not any wider social benefits. Positive dynamic effects from the policy – either for improved child development, increased parental employment, and higher earnings resulting from greater labour market attachment – are additional and are not accounted for in the model. Likewise, any additional costs, such as administrative costs, are not considered, although these are likely to be minor.
- Second, the level of take-up determines the overall size of the scheme. But the distribution of take-up is also relevant. It is assumed that take-up will be balanced across the income distribution. The more that actual take-up is tilted to one or other end of the income distribution the more the parameters of the policy would need to be adjusted to maintain fiscal neutrality.
- Third, selecting the initial cohort for the modelling and estimating subsequent wage growth are fraught with

\textsuperscript{182} Alan Manning and Joanna Swaffield, “The gender pay gap in early-career wage growth”, CEP discussion paper 700 (2005), 43.
difficulties (see Box 5.2). The uncertainties around this kind of analysis, and their interaction with behavioural effects of the scheme, mean that the model can only provide an approximation of the right combination of policy parameters.

- Fourth, the model is based on the assumption that everyone taking up childcare assistance will request the maximum amount allowed. In reality, there is likely to be a substantial difference between the maximum amount of assistance available and the average level actually sought. This will reduce the total amount drawn down. Nevertheless, subject to the uniform take-up assumption, the scale of the scheme has no implication for its cost.

Box 5.2 Selecting the sample and projecting future earnings

In selecting all families with a child aged three, the aim was to identify an eligible population with a representative range of starting incomes for the claimant group. By the time a child is three the overwhelming majority of parents take advantage of the free entitlement. Families with children of a younger age might be more likely to have one parent not in work. Consequently they would be excluded from the eligible sample even though that family might subsequently return to work and become eligible for the scheme. By contrast, taking a sample of families with older children might risk drawing a sample of parents with higher incomes than the typical claimant (since older children are correlated with older parents and hence higher wages).

Having identified the eligible cohort, we needed to establish their likely earning power. The cost of the policy under a given set of policy parameters is determined by the capacity of claimants to pay the subsequent contributions, which in turn depends upon their income growth. If earnings grow fast then a higher proportion of families will pay the full cost of their childcare, making it possible to offer the scheme on more generous terms than if wages grow slower. But estimating wage growth is highly problematic since it requires the collection of incomes data on the same families over many years.
Ideally it would be possible to use longitudinal survey data to track families’ wage growth over time. However, sample sizes for the eligible group in the most appropriate such survey, the British Household Panel Survey, were too small to be meaningful. For this reason it was necessary to take a snapshot of earnings of the eligible group – some 297 observations representing almost 300,000 UK families – from the Family Resources Survey and draw on other sources of information to establish how wages might change subsequently.

Drawing on a snapshot sample of families at a point in time is likely to have a number of limitations. First, in applying average wage growth rates to the earnings of different people in the sample (differentiated by age and gender), we effectively ignore any outliers, such as main earners who might become permanently unemployed and cease paying into the scheme. This could make the scheme appear viable at more generous parameters than would be needed to cover its costs. On the other hand, variation in people’s earnings could mean that those observed to have low wages at a point in time might see faster wage growth in the future, for example, if they returned to full-time employment from part-time work. This kind of effect could mean that the model under-estimates the level of payments we might see from the cohort.

On balance therefore, it is reasonable to assume that the model will over-estimate the payments of some families and under-estimate those of others in roughly equal measure. Our basic model of contributions therefore gives a sense of the policy parameters necessary to make the scheme costless overall, but substantially more time and analytical resource would be necessary to refine these basic estimates. Furthermore, only a pilot scheme would enable us to test the behavioural assumptions on which the results of the modelling depend, such as the assumption that take-up is uncorrelated with income.

Modelling results
The model considered how the outcomes of the policy were affected by changes to six variables, given the estimated wage levels and trajectories of the main earner in eligible households.
The six variables were:

- Maximum support
- Interest rate
- Contribution income threshold
- Contribution rate
- Maximum contribution period
- Eligible income

It quickly became apparent that, in reality, three of these variables could be fixed. This included:

- The contribution income threshold was set at the level of the income tax personal allowance, which is £8,105 in 2012-13; and
- The maximum contribution period was set at 20 years; and
- The eligible income would be the main earner on £12,000 or more (equivalent to full-time work at the minimum wage);

The real action lies in changes to the remaining three parameters:

- Maximum support
- Interest rate
- Contribution rate

Chart 5.1 below shows the interactions between the maximum amount of support a household could claim, the contribution rate and the interest rate needed to make the scheme fiscally neutral given the above fixed parameters.

At a 4% contribution rate, the maximum level of support could range between £6,500 at a 2.6% interest rate and £8,200 at a 3.4% interest rate. At an 8% contribution rate, the maximum support could vary between £12,900 and £16,500 at respective interest rates.
As Chart 5.1 shows, a contribution rate of around 6%, with an interest rate of around 3% would allow for a maximum level of support of around £11,000.

Chart 5.1 Maximum support households could receive given different interest rates and contribution rates

Chart 5.1 also shows how higher interest rates raise the level of assistance that can be offered to families for a given contribution rate, while maintaining fiscal neutrality. This is because the surplus from the interest rate acts as a cross subsidy to those whose subsequent earnings mean that their total contributions will be less than the support they received.

Considering the trade-off between these parameters, the following parameters are proposed:

- Maximum support at £10,000 per family overall
- An interest rate of 3% above inflation applied to the amount drawn down by parents
- A contribution rate of 6% of the main earner’s gross income above the income tax personal allowance
It is worth noting that our modelling suggests that more generous parameters might be viable. For a limit of £10,000, the analysis suggests that fiscal neutrality could be achieved with an interest rate of 2.7%, a substantially better deal than the 3% proposed. Alternatively, families could be allowed to borrow up to £11,000 at the 3% interest rate. However, given uncertainties in the modelling, we have proposed a slightly more conservative set of parameters for the scheme, which should ensure that it is comfortably cost free for government.

As better data on take-up and earnings trajectories becomes available, for example through a pilot, some or all of the parameters could be amended and perhaps relaxed. For example, the snapshot sample we used is likely to underestimate the actual earnings of the people using the scheme. By using the actual earnings, the pilot is likely to demonstrate that fiscal neutrality could be achieved even with more generous parameters. Equally, the parameters could be made more generous in the future if the public finances improve and the fiscal neutrality constraint was relaxed.

What do parents want?
The modelling demonstrated that there are a range of options for the policy that would be fiscally neutral. But fiscal neutrality is only a matter of concern if parents are actually interested in taking-up the scheme.

To understand this we analysed findings from the YouGov survey commissioned for this project. The earlier results reported in Chapter 2 highlighted the problems that parents identified with childcare in their local area, of which affordability was the most significant. But the question is: do they see the NCCS as part of the answer?

A good idea?
Chart 5.2 shows that, when told about the basic idea of the scheme, a clear majority of those expressing an opinion (57%) thought that
it was ‘a good idea’ compared with 43% who thought that it was ‘a bad idea’. This was broadly consistent across all demographic categories – with the biggest variation by age of parents. Parents under 40 were most favourable with 62% of those expressing an opinion assessing it as a good idea, whereas only 45% of parents over 40 expressing an opinion held the same view. A quarter of parents over 40 and parents in social class C2DE did not express an opinion – the highest among all groups.

Chart 5.2 Parents’ views of the NCCS, by social group

Likely to use the scheme?
Above a quarter of parents in the survey (27%) said that they would be likely to use a scheme such as this, if it were to be implemented. Usage was slightly more likely among women than men, and among parents in social classes ABC1 compared with parents in social classes C2DE. Younger parents were much keener to use the scheme than older parents. This is unsurprising since this is the group most likely to be credit constrained. This is shown in Chart 5.3 below.
A significant minority of parents not using formal childcare said that they would be likely to use the scheme if it were available. This included a quarter of parents who currently do not use any childcare, and 28% of those parents relying on friends or relatives.

Chart 5.3 Parents who are likely to use the scheme, by social group

Impact on the amount of childcare used

The survey asked parents how the availability of the scheme might affect the amount of formal childcare they used, with 16% saying that it would increase their use. This was more than a quarter of parents who used formal (paid for) childcare and who expressed a preference. This suggests that the dynamic effects of the introduction of such a scheme could be significant, although parents were not asked whether this increase in the use of formal childcare would be as a result of increased labour market participation or the substitution of informal for formal provision. Older parents and those from lower social classes were less likely to see the scheme as a reason to use formal (paid for) childcare: 35% of both groups did not think they would change their use of formal childcare compared with 30% overall. These results are shown in Chart 5.4.
Amount of assistance preferred
The maximum amount of support offered through the NCCS in total is proposed to be £10,000. We sought to explore whether this would satisfy the needs of parents. Of parents who were interested in assistance from the scheme, more than half wanted less than £200 a month, and 83% would be covered by a scheme that offered up to £300 a month or £3,600 per year. This suggests that £10,000 is sufficient to cover most families’ needs for the expensive early years of a child’s life. The most frequent amount of assistance that parents wanted to access was between £50 and £100 a month: 23% of parents who wanted some assistance through the scheme wanted this amount, and only one-in-ten of those who would seek assistance wanted above £350 a month. This is showed in Chart 5.5 below.

More parents over 40 and more parents in lower social classes wanted lower amounts of assistance through the scheme. Londoners generally wanted higher levels of assistance, which would accord with our analysis of the greater credit constraints they are likely to face.
Chart 5.5 Amount parents would want from the NCCS (among those who expressed an opinion)

Source: YouGov polling, November 2011

Making contributions

The survey asked parents who said that they were fairly or very likely to use the scheme a question about their preferences for making contributions (described as repayments). It asked about the rate at which they would prefer to make contributions and for how long, as well as an interest rate that would be acceptable. The largest proportion – 41% – went for the default option taken for the modelling: a 6% contribution rate, with an interest rate of 3%. This is shown in Chart 5.6. The numbers of respondents seeking to repay either faster or slower were roughly equal.
Box 5.3 lists all the selected policy design parameters – derived from the modelling, polling and theory in Chapter 4 – to achieve fiscal neutrality, progressivity and optimal take-up. Policy-makers may of course wish to change these parameters to better achieve certain goals. Box 5.4 illustrates the typical childcare payments a middle-income family will have to make if they use NCCS compared to if they chose not to use the scheme.

**Box 5.3. Policy design parameters of NCCS**

**Eligibility**
- **Household eligibility**: all parents working with a child under school-age
- **The eligible income**: Universal for all households where main earners earns £12,000 or more (equivalent to full-time work at the minimum wage)
- **Maximum support**: Capped at £10,000 per family in total
- **Settings**: High-quality formal childcare providers only
Distribution

- **Form of payment:** Voucher system where parents pay providers using a smart card
- **Liability:** Higher earning partner

Contributions

- **Contribution income threshold:** the level of the personal allowance, £8,105 in 2012-13
- **Contribution rate:** 6% of salary above the contribution income threshold for the main earner
- **Interest rate:** An interest rate of 3% above inflation applied to the amount drawn down by parents
- **Maximum contribution period:** 20 years

Box 5.4. Childcare payments for a middle-income family in the NCCS

Let us assume that a family needs to find £50 from their own pocket a week, above the public support they are receiving, to secure a full-time childcare place. The family requires this level of support for three years when their child is aged between one and four – a total cost of £7,800 over the period.

Both parents in the family work, with the main earner on £20,000 per annum and the other parent earning £10,000 per annum. Under current arrangements, the private contributions they make towards childcare would constitute 8.6% of their gross household income.

If they used the NCCS, the family would lower their childcare outlay from £50 per week to around £14 by the end of year three, helping to spread the three year cost of £7,800 over 11 years. This would constitute 2.4% of gross household income per year.
Conclusion
This chapter has reported results from the modelling and polling to determine whether a scheme offering financial assistance for childcare, paid for by subsequent contributions, could effectively balance the interests of taxpayers and parents, to meet its intended objectives.

It was found that was indeed the case. The modelling showed that there were a range of iterations for the policy design parameters that would be fiscally neutral, based on fairly cautious assumptions about the future earnings trajectories of the main earners in eligible households.

The polling, then, found that many parents were in favour of a scheme of this nature. Respondents indicated that the proposed parameters represented a good trade-off between a range of fiscally neutral alternatives.

In addition, it was found that the majority of parents who wanted to use the scheme said they would seek assistance of under £200 a month, suggesting that the maximum £10,000 facility proposed should be sufficient for most families. A significant minority of parents thought that the availability of the scheme would increase their usage of formal childcare.

The NCCS can support parents with the growing and increasingly unaffordable private contributions they have to make towards the cost of childcare. It would act as financial assistance above and beyond the existing public support – such as tax credits and the free entitlement – for childcare costs. With increased revenue flowing into the sector, the market would mature, driving up quality, generating efficiencies and creating more flexibility.

But to identify exactly the fiscal neutrality and take-up of the NCCS under the parameters given, a pilot will be needed. The
estimates in this chapter have made on the basis of snapshot survey data and rely on a number of unavoidable assumptions. Equally, interest in the scheme might be very different in reality than what our polling has suggested. For all these reasons it is important to verify the design of the scheme through a pilot programme. Nevertheless, the above analysis offers a solid starting point.
CONCLUSION

Affordable, high-quality formal childcare is the critical ingredient to achieving better social justice and improved economic growth. So it is time for formal childcare to become an esteemed part of Britain’s education system, where all families – no matter their income – can access high-quality childcare provision that meets their needs.

Currently, however, parents face high costs, making childcare unaffordable for many. This situation is likely to worsen in the years ahead as childcare costs rise but public support falls. Childcare settings often operate in quite fragile, localised micro-markets, limiting the opportunities for sustainable scale. Parents are therefore faced not only with punishing costs, but also low quality, poor flexibility and unsustainable provision. All these failures are leading to relatively low take-up, depriving individuals and society of enormous benefits.

Those of us who are passionate about the tremendous potential of formal childcare could keep asking, year on year, for a little more public investment. Indeed, the Treasury will release more funding from time to time, as it did recently with its welcome decision to provide additional investment for more two-year-olds to access free childcare hours through the early years free entitlement. Though significant, such funding is unsubstantial for building the childcare service Britain pressingly needs right now.

There is an alternative. It is costless to government and it will benefit parents. This paper proposes a National Childcare Contribution Scheme (NCCS) that is complementary to existing public support. Rather than paying their private contribution to childcare costs all at once at the point of use for a short period of time, the NCCS uses the government’s balance sheet to allow working parents – if they opt in to this voluntary scheme – to
make contributions to their childcare costs over a longer period as the benefits of closer attachment to the labour market accrue. Parents will pay for their childcare through income-contingent contributions from their salary each month, only when they are earning above a certain income threshold. These contributions will end after a maximum period of time, meaning low earners will pay less overall than higher earners.

The proposed parameters around the eligibility for the scheme, distribution of support and subsequent parental contribution advocated in this paper means the NCCS achieves key goals of fiscal neutrality, progressivity and increased use of childcare. Working parents with children under the age of five will be able to access a total of £10,000 – which can be used periodically and will be given as a voucher. This will be paid by a contribution of 6% of the main earner’s salary above the personal tax allowance for a maximum 20 years, or until the contributions cover the initial level of support.

In the future, government could make this system much more generous for parents, especially those on the lowest incomes. It would have to subsidise the scheme to do this. It could do this by finding money from alternative government expenditure. This could involve using funding from current expenditure on childcare – for instance, the childcare element of the Working Tax Credit, tax exemption on childcare vouchers or the early years free entitlement – or from non-childcare related government expenditure. Indeed, existing government support for childcare – which is complicated and disparate – could be simplified by using it to subsidise this scheme. Alternatively, when the public finances improve, the need to achieve fiscal neutrality will reduce, and government could simply spend additional public money to subsidise the scheme.

Polling revealed that many parents think this is a good idea and some will use the scheme if available. Given this support – and the fact that it could boost consumption of formal childcare without
costing the exchequer additional money – there is a clear case for Government implementing the NCCS as soon as possible after a robust pilot has been undertaken.

Though significant steps have been taken in the past few decades to building a modern public service, British families still haven’t got the childcare system they need. A National Childcare Contribution Scheme provides a big part of the answer in this period of fiscal austerity.
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High-quality formal childcare improves children’s development and helps parents stay in work. However, it remains unaffordable for many families, and this situation is set to worsen in the years ahead.

Due to the state of the public finances, the government is unable or unwilling to spend more money to help parents with the considerable costs of childcare. But there are other things government can do to help parents with the burden. A creative solution is needed.

This paper proposes an entirely new policy - a National Childcare Contribution Scheme – to help parents manage the high costs of childcare over a number of years. In straightened times, this innovative proposal offers the only route to the universal, high-quality childcare service Britain desperately needs.