

SPICe Briefing

Early Learning and Childcare

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Camilla Kidner, Richard Marsh and Nicola Hudson

This briefing gives the legislative and policy context for the provision of childcare and pre-school education and considers the expansion of early learning and childcare as set out in the Scottish Government's White Paper "Scotland's Future". The focus in this paper is on the economics of childcare. It does not look at issues related to child development, but concentrates instead on issues of cost, supply, demand and the effect of childcare provision on the labour market participation of women with young children.



CONTENTS

EXECUTIVE SUMMARY	3
INTRODUCTION	4
CHILDCARE SUBSIDIES	5
TAX AND WELFARE SUBSIDIES	5
<i>Working Tax Credit</i>	5
<i>Childcare Vouchers</i>	6
PRE-SCHOOL EDUCATION	6
<i>Provision 1998 to 2015</i>	6
USE OF CHILDCARE	9
PRICE OF CHILDCARE	9
<i>Cost to cover full time work</i>	9
PATTERNS OF CHILDCARE USE	10
<i>Paying for childcare</i>	11
SUPPLY OF FORMAL CHILDCARE	12
TYPES OF PROVISION	12
SUFFICIENCY OF SUPPLY	13
WORKFORCE	14
<i>Review</i>	14
<i>Pay</i>	14
<i>Pre-school teachers</i>	15
MOTHERS AND THE LABOUR MARKET	15
EMPLOYMENT RATES	15
WORKING PATTERN	17
<i>Working patterns in the EU</i>	17
EFFECTS OF CHILDCARE REFORMS IN OTHER COUNTRIES	19
<i>Spain</i>	19
<i>Norway</i>	19
<i>Quebec</i>	20
<i>Possible reasons for mixed results</i>	20
SURVEYS IN THE UK	21
WHITE PAPER PROPOSALS	22
WHITE PAPER COSTINGS	22
<i>SPICe estimates</i>	22
SCOTTISH GOVERNMENT ECONOMIC ANALYSIS	24
<i>Interpretation of modelling results</i>	26
<i>Sensitivity analysis</i>	29
ANNEXE A: LEGISLATIVE CONTEXT	30
<i>Scottish Legislation</i>	30
<i>UK Legislation</i>	30
ANNEXE B: ASSUMPTIONS UNDERPINNING COST ESTIMATES	32
<i>Hourly rates</i>	32
<i>Assumed levels of uptake</i>	33
<i>Population estimates</i>	33
<i>SPICe assumptions made in costing early learning expansion</i>	33
ANNEXE C: DEMOGRAPHICS	34
SOURCES	35
RELATED BRIEFINGS	42

EXECUTIVE SUMMARY

The provision of childcare features prominently in the Scottish Government's White Paper on independence, as well as in policy discussion in England. The Scottish Government's long term policy is to provide 1,140 hours a year of early learning and childcare for 1 to 5 year olds. One of the aims is to increase maternal employment as well as contributing to the Government's existing early intervention agenda.

Childcare costs in the UK are high. At around £4 per hour (on average), they are equivalent to over a third of the average female part time hourly rate. However, there is a large variation in the fees charged by different providers and variation between families in the use of and spend on childcare. The actual costs of childcare paid by parents can be reduced through informal arrangements with family and friends, by parents reducing working hours and by the public subsidy of childcare provision. Not including support for children in need, reserved and devolved subsidies provide around £480m a year for early education and childcare in Scotland. Most subsidy is focused on pre-school children. Childcare subsidies are increasing with changes to tax vouchers, the introduction of Universal Credit and various commitments to increase early learning provision.

Parents can reduce the need to buy childcare by giving up work or working part time, although both choices can also result in a reduction in current income levels as well as future wage earning potential. The employment rate for mothers in Scotland is between 60 and 64% for those with children under 5, and those mothers that do work tend to work part time. There is a substantial literature on the links between childcare provision and maternal employment. However, evidence is mixed on the degree to which changes to childcare provision lead to an increase in maternal labour supply, with some studies finding the effect to be very small (eg research on Norway's mid-1970s childcare reform) and others reporting large effects (eg research on Quebec's late 90s reform). A recent UK survey found that around 30% of parents of pre-school children would be very likely to start work or increase their hours if the Government covered the extra costs of childcare.

The Scottish Government estimates that the first two stages of an SNP post-independence childcare expansion would cost an additional £700m per year (providing 1,140 hours of care to 3 and 4 year olds and around half of 2 year olds). SPICe has produced estimates that the final stage of the Scottish Government's proposals (1,140 hours of childcare to all 1 to 4 year olds) would cost around an additional £1.2bn. However, these costings are dependent on a number of assumptions, such as the hourly rate used to cost childcare.

Scottish Government analysis suggests that, over the long term, increasing the labour market participation rate of women by 6 percentage points could increase economic output by £2.2bn and increase tax revenues by £700m. The Scottish Government analysis does not consider whether the proposed changes in childcare policy would lead to such a change, rather it seeks to estimate what might happen if such a change in female participation took place. The increased output and tax revenues suggested by this analysis rely on up to 104,000 women moving from economic inactivity into economic activity. At present, there are only 64,000 mothers of 1 to 5 year olds who are economically inactive.

INTRODUCTION

There is considerable policy discussion about childcare¹ at present. Partly this relates to concerns about child development and early years intervention, and partly to supporting mothers into employment. These two policy aims overlap considerably but may not necessarily be amenable to the same solutions. While it is important to realise that the decisions families make around work and childcare are complex and that the importance of non-economic considerations should not be ignored, this paper focuses mainly on the economic considerations.

As noted above, many factors affect a family's decisions about childcare and working patterns. These include the availability of informal childcare, the costs and availability of formal childcare, judgements about quality of childcare provision, the impact of parental leave provision on later decisions about employment, the general state of the labour market and the fit between the types of jobs available and the types of childcare available. Another consideration will be whether one or both parents should change their working pattern to accommodate childcare.

A range of reserved and devolved legislation affects the supply and use of childcare. In general, issues relating to the supply of childcare are devolved while policies providing cash subsidies or rights to time off work are reserved.

In Scotland, the relevant legislation includes:

- The Public Services Reform (Scotland) Act 2010 provides for the registration and inspection of children's daycare
- The Regulation of Care (Scotland) Act 2001 sets out the framework for the regulation of the childcare workforce (with the exception of childminders)
- Education (Scotland) Act 1980 – since 2002 this has required local authorities to provide free part time pre-school education. The Children and Young People (Scotland) Act 2014 (the 2014 Act) renamed this 'early learning and childcare' and extended it to some 2 year olds.
- Children (Scotland) Act 1995 requires local authorities to provide daycare to children in need and to plan children's services (this latter duty is now replaced with an extended service planning duty in the 2014 Act).

The UK legislation covers employment rights (including parental leave), welfare benefits and tax relief. Further details on both Scottish and UK legislation can be found in Annexe A. This briefing considers:

- Current and planned provision in relation to early learning and childcare – as set out in existing legislation and as announced by current UK and Scottish governments
- Research and evidence in relation to the supply and use of childcare
- Current labour market data and research relating to maternal employment
- The Scottish Government's proposals for early learning and childcare in the event of the SNP forming a government following a vote in favour of independence (the "White Paper proposals")

¹ There are various terms used which differ according to context. For example, in legislation there is daycare (1995 Act) pre-school education (Education Scotland Act 1980), early learning and childcare (2014 Act), childcare (tax credits and tax relief legislation).

CHILDCARE SUBSIDIES

Childcare costs in the UK are high (Family and Childcare Trust 2014). However, the cost to parents is subsidised to some extent through free pre-school childcare provision, working tax credits and childcare vouchers. Public subsidies amount to around £480m per year (see table 1). This is equivalent to £782 per year per family². However, subsidies are not evenly spread. Local authority nursery provision and most of the help provided through tax credits are focused on pre-school children.

Local authorities also provide £48m per year for ‘children’s day care’ (CIPFA, 2013). Generally, this is provided through social work budgets and targeted at vulnerable families, including those affected by disability (children in need). There are no figures available for the number of children benefiting from daycare under this provision.

Table 1: Current public subsidies for childcare and early education

	Cost to public authorities	Benefit to families	Coverage
475 hours pre-school for 3 and 4 year olds	£311m to local authorities in 2012/13	£51 per week in school terms in 2014 (based on average cost of £4.08 per hour)	all 3 and 4 year olds (c.120,000 children in 2014)
Childcare vouchers	est.£64m to HMRC in 2012/13	£22 per week if both parents in the scheme	est. a third of employees with access to scheme in 2012 - actual uptake may be lower
Tax credits childcare element	est. £105m to HMRC in 2011/12	£56 per week average award in 2011/12	36,000 families in 2011/12

Notes: childcare vouchers estimate based on £640m cost for childcare vouchers in the UK,. Total HMRC expenditure, including support for workplace nurseries is around £800m (£340m from NI contributions and £460m from income tax (HMRC, 2013a) Uptake of childcare vouchers based on Bradshaw et al, 2013 findings that 36% of families with 10 month old children have access to vouchers. Table assumes this wouldn’t vary by age of child. Tax credit childcare HMRC cost is the estimated total annual value of awards made based on UK figures of £1,217m to 416,000 families in 2011/12 (table 3.2, HMRC 2013b) Sources: CIPFA 2013, Family and Childcare Trust 2014, GROS 2012, Seely 2014, Bradshaw et al 2013, HMRC 2013b, HMRC 2013c

While in Scotland, the focus on childcare reform has been on the proposals in the Scottish Government’s White Paper, there are plans for changes to all forms of childcare subsidy – Universal Credit, tax vouchers and supply of early learning. The following section looks at these different forms of subsidy in more detail.

TAX AND WELFARE SUBSIDIES

Working Tax Credit

Current provision

Parents on working tax credit can claim 70% of childcare costs, up to a maximum of £175 per week for one child or £300 for two or more children. This is means tested, so parents could receive less than the amount claimed. However, not all families getting working tax credit are eligible. Costs can only be claimed for registered childcare and parents must be working at least 16 hours a week. In two parent families, both parents must be working this number of hours.

² There are 614,000 families with dependent children in Scotland.(National Records of Scotland, 2014)

Future changes

Under Universal Credit, from 2016, parents will be able to claim help with 85% of childcare costs regardless of hours worked (DWP, 2014). The monthly limits will also increase to £532.29 for one child and £912.5 for two or more children (DWP 2013).

Childcare Vouchers

Current provision

If an employer is in a childcare voucher scheme, their employees can get tax relief on up to £55 per week from their gross salary where this is used to pay for registered childcare (HMRC 2013d). This is worth around £11 per employee per week (childcare vouchers online). Where both parents work and their employers are in the scheme both parents can claim, even if it is for the same child (HMRC 2013d). A Scottish survey found that over a third (36%) of families with 10 month old children had access to the scheme (Bradshaw et al, 2013) but similar, earlier work found that better off families were much more likely to have access (Bradshaw et al, 2008).

Future Changes

The UK Government plans to create a new childcare subsidy scheme from Autumn 2015, which will not depend on employers being in a scheme. Instead, parents will pay into a childcare voucher account and this will be topped up by the Government by up to £2,000 every year for each child up to the age of 12 (HM Treasury 2014a). While the existing scheme is open to any employee where the employer is in a scheme, the new scheme will require that both parents are earning at least £50 per week and both earn less than £150,000 a year (HM Government, 2014). Another difference is that the new scheme will only allow one claim per household, whereas the existing scheme allows separate claims from each employee in a household. Families claiming tax credits or universal credit will not be able to join the new scheme (HMRC 2013e). It has been estimated that the new scheme will be available to 200,000 Scottish families (Herald 2014).

Asked whether the Scottish Government can guarantee child tax credits and childcare vouchers in an independent Scotland, Aileen Campbell MSP, Minister for Children and Young People, replied that:

On independence, the entitlements to benefits, credits, vouchers and reliefs that apply in the UK will continue to apply in Scotland, with such benefits continuing to be paid in exactly the same way as they are now. However, future Scottish governments can choose to do things differently from the rest of the UK (Scottish Parliament 2014a).

PRE-SCHOOL EDUCATION³

Currently, the main public subsidy for childcare in Scotland is the statutory provision of part time pre-school education places for every 3 and 4 year old whose parents wish it. This is funded by local authorities and has been available in Scotland since 2002. It is in this area of childcare that the White Paper makes proposals for a considerable expansion.

Provision 1998 to 2015

At the current rate of 475 hours per year, free pre-school education is worth around £1,938 a year per child to parents (Based on £4.08 per hour, Family and Childcare Trust, 2014). Almost

³ Currently known as pre-school, it will from August 2014 in Scotland be termed 'early learning and childcare.' The key point is that this type of childcare must deliver Curriculum for Excellence to 3 to 5 year olds.

all parents with 3 and 4 year olds use free pre-school education⁴. Some pre-school is also provided to 2 year olds and to 5 year olds who have deferred entry into primary school. In total, local authorities spent £311m on pre-primary education in 2012/13 (CIPFA 2013). From August 2014, this provision will be known as 'early learning and childcare' and will provide 600 hours to 3 and 4 year olds, looked after two year olds, two year olds in families with the new kinship care order, workless families and families seeking work. It is estimated that this will create eligibility for 15% (8,400) of two year olds. A survey in December 2013 found that 74% of local authorities were confident of meeting the August 2014 target for 3 and 4 year olds, but only 19% were confident they could meet the target for two year olds (Family and Daycare Trust 2014). From August 2015, the Government intends to widen eligibility to two year olds whose families meet the criteria for free school meals. This would increase entitlement to around 27% (15,400) of two year olds (Scottish Government 2014a).

Comparisons with England

Table 2 below illustrates that statutory free pre-school provision for 4 year olds was introduced earlier in England than in Scotland, although Scotland then moved ahead by introducing free pre-school for 3 year olds in 2002. Since 2010, this provision has been more extensive in England. There are also differences in the legislative framework. For example, the Childcare Act 2006 requires English local authorities to provide information to parents about childcare provision (s.12) and requires that local authorities provide, as far as reasonably practicable, sufficient childcare for working parents (s.6). The Children and Families Act 2014 includes regulation making powers that could require English local authorities to allow parents a degree of choice over which provider their child attends for their statutory free early years provision (s.87).

Table 2: Development of statutory free early learning in England and Scotland up to 2015

Date	England		Scotland	
	hours	age	hours	age
1998	412.5	4		
2002			412.5	3 and 4
2004	412.5	3 and 4		
2007			475	3 and 4
2008	475	3 and 4		
2010	570	3 and 4		
2012	Hours can be used over 2 days, providers cannot require parents to purchase additional hours of care in order to qualify for free hours			
2013	570	3, 4 and 20% of 2 yr olds		
2014	570	3, 4 and 40% of 2 yr olds	600, with 'flexibility' to be phased in at a later date	3, 4 and 15% 2 yr olds
2015			600	3, 4 and 27% 2 yr olds

Sources Brewer et al 2014, Kidner, C. 2011.

⁴ Total registrations are around 100% of eligible population. However there may be some duplication with a child attending more than one setting.

Current Scottish Government plans up to 2015 will result in English and Scottish total provision being similar, although distributed differently across age groups. Figure 1 shows that in Scotland in 2015, there will be around 80m hours of free statutory early learning and childcare provided per year. If English legislation applied in Scotland, there would also be around 80m hours provided, although the distribution across age groups would be different.

Figure 1: Comparison of free statutory early learning under English and Scottish legislation

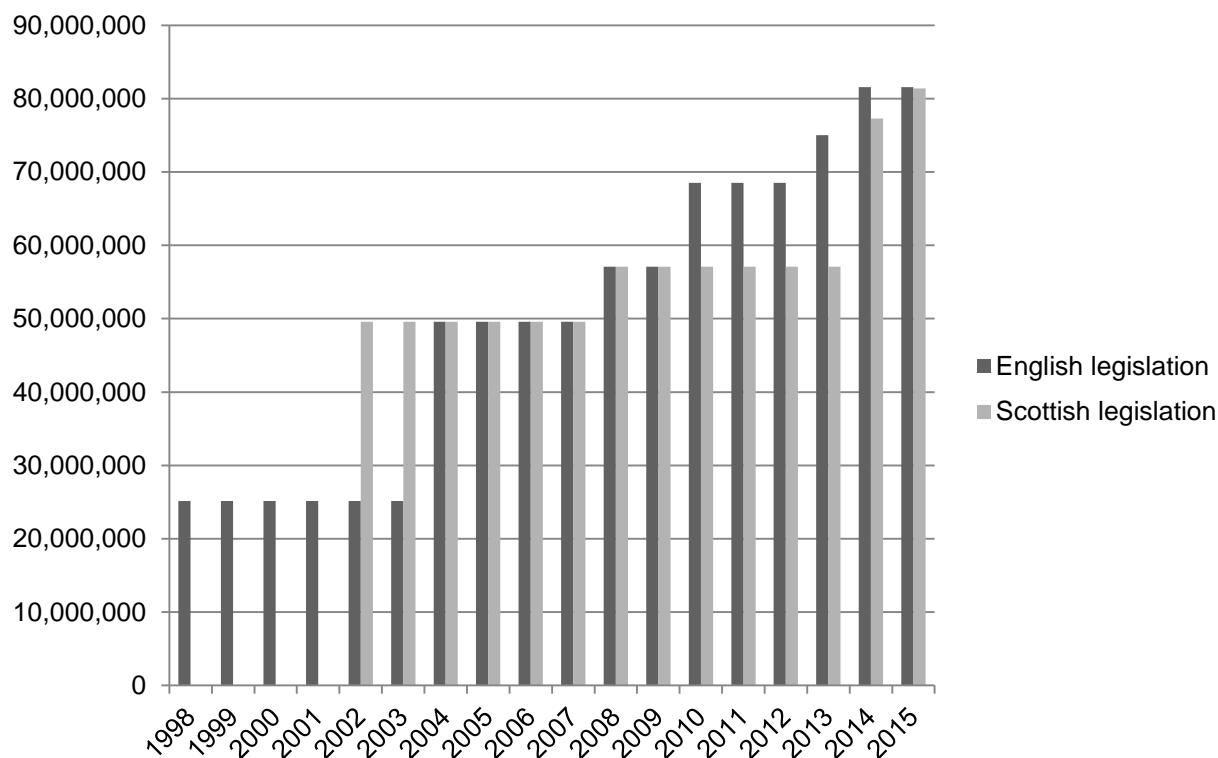


Figure 1 above shows what the total number of childcare hours would be in each year if the legislation applicable at the time applied to the 2015 Scottish population of 2, 3 and 4 year olds. For example, if 1998 English legislation applied in 2015 in Scotland, it would provide around 25m hours of free pre-school.

Proposals to extend early learning provision after 2015

Both the UK Labour and Liberal Democrat parties have announced proposals to extend early learning provision if in government following the next UK general election, as summarised in Table 3.

Table 3: UK Liberal Democrat and Labour party proposals

	Provision in 2015	Proposed extension	Total proposed
Labour	570 hours for all 3 and 4 year olds and 40% of two year olds	Further 380 hours for 33% of 3 and 4 year olds	950 hours for 3 and 4 year olds where parents are working, 570 for remainder and for 50% of 2 yr olds
Liberal democrats		380 hrs for 1 yr olds, 570 hours for additional 60% of 2 yr olds, additional 190 hours for 3 year olds and additional 380 hours for 4 yr olds	380 for 1 yr olds, 570 hours for 2 yr olds, 760 hours for 3 yr olds, 950 hours for 4 yr olds

Source: Brewer et al, 2014

In 'Together We Can' (2014) Scottish Labour proposes 25 hours a week of early learning provision for 3 and 4 year olds and 15 hours a week for half of two year olds together with further consultation on creating affordable, flexible, high-quality childcare including for school

age children. The Scottish Liberal Democrats support extending provision to 40% of 2 year olds (Scottish Liberal Democrats online). The Scottish Conservatives have said they would increase nursery provision particularly for disadvantaged youngsters (BBC 2014). SNP proposals as set out in the White Paper are discussed later in this briefing.

USE OF CHILDCARE

One of the striking characteristics of childcare provision is the variation in fees charged by different providers and in different patterns of use by families. The following section looks at current fees and at the complex arrangements that families use in order to cover their childcare needs.

PRICE OF CHILDCARE

The average fee for an hour of childcare in Scotland in 2014 is around £4.00. This varies by type of childcare, age of child and location. Childcare prices have been rising faster than general inflation and faster than wages ([Family and Childcare Trust, 2014a](#)). Average hourly rates for 2014 and percentage increases since 2010 are given below:

Table 4: Price of childcare in Scotland, 2014

Type	£ per hour 2014	% change since 2010
Nursery under 2	£4.24	26%
Nursery 2+	£4.08	31%
Childminder under 2	£3.82	19%
Childminder 2+	£3.87	23%
After school club	£3.30	3%

Source: Family and Childcare Trust 2014a

These averages conceal very large variations. The average cost for 25 hours care for a child under two is 80% higher in the most expensive local authority (£148 per week) than in the cheapest (£83.75 per week). The amount of variation is greater in Scotland than in England. The highest fees reported for a nursery in Scotland in 2014 were £306 per week for a child under two receiving 25 hours of childcare, equivalent to £12.24 per hour (Family and Childcare Trust 2014).

Cost to cover full time work

One of the main reasons for expanding the provision of childcare is to enable parents, particularly mothers, to work. Assuming an average working week of 35 hours, the cost implications of full-time childcare would be significant⁵. To cover a full time job of 35 hours, a parent might require over 40 hours of childcare (to allow for pick up and drop off). At the average hourly rate of £4.08, this would cost £163 per week, or £7,834 for a typical 48 week year. This is just over a third of the median gross weekly wage of £454 for a woman working full time (Scottish Government online).

The following example illustrates how this might work. A two parent family working full time and on average wages would have a household income of £998 per week. If they had two pre-school children aged 1 and 3, they would need around 80 hours of childcare per week. If they

⁵ This is merely illustrative of the implications of full time work. The Scottish Government has not stated as policy that public childcare hours should match full time working hours.

were entirely reliant on formal childcare this would cost £333 per week. Without any public subsidy, this would take up a third of the household income.

Current state subsidies would not reduce this bill by very much. If both parents had access to a childcare voucher scheme, and assuming it was a salary sacrifice scheme, they would save £22 per week. For their 3 year old, they would get 12.5 hours free childcare during term time, saving £51 a week. With a household income of £998 per week they would not qualify for working tax credit. So, from a hypothetical childcare bill of £333 per week, this couple would probably get £73 per week public subsidy leaving them to pay £260 per week, or 26% of their household income, on childcare (this would be higher in the school holidays).

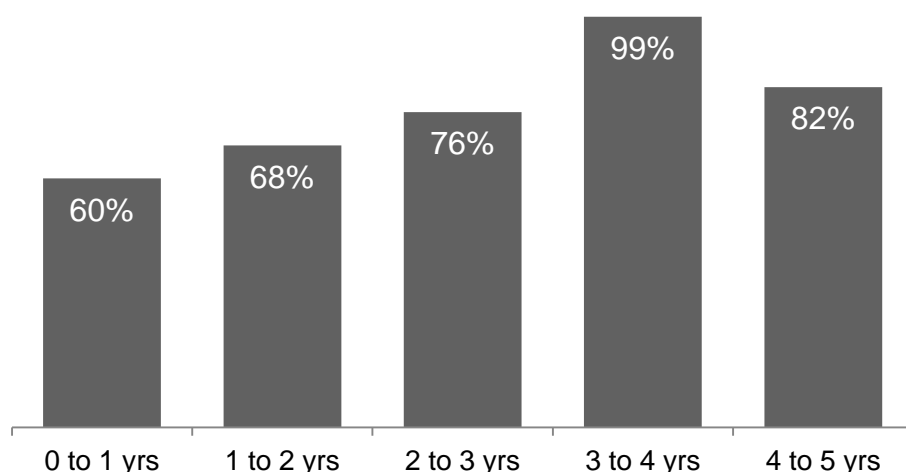
This perhaps helps to explain why, typically, two parent families will decide that it is not in their financial interest for both parents to work a 35 hour week, and why many of them rely on informal childcare arrangements instead of or in addition to formal, paid for care.

The following section looks at what is known about patterns of childcare use in Scotland.

PATTERNS OF CHILDCARE USE

“Growing up in Scotland” (GUS), a longitudinal study of children and their families, shows that the majority of children are in some form of childcare between birth and 5 years old.

Figure 2: Use of childcare (formal and informal) by child's age



Source: Bradshaw and Wasoff (2009) table 2.1

However, the number of hours of childcare used varies considerably. Around a third of 2 and 4 year olds are in childcare for between 17 and 30 hours a week. Around a fifth of 2 year olds and a third of 4 year olds are in childcare for more than 30 hours a week.

Table 5: Hours of childcare by age of child

Hours per week	Two year olds	Four year olds
8 or less	21%	2%
9 to 16	20%	34%
17 to 30	37%	32%
More than 30	23%	32%

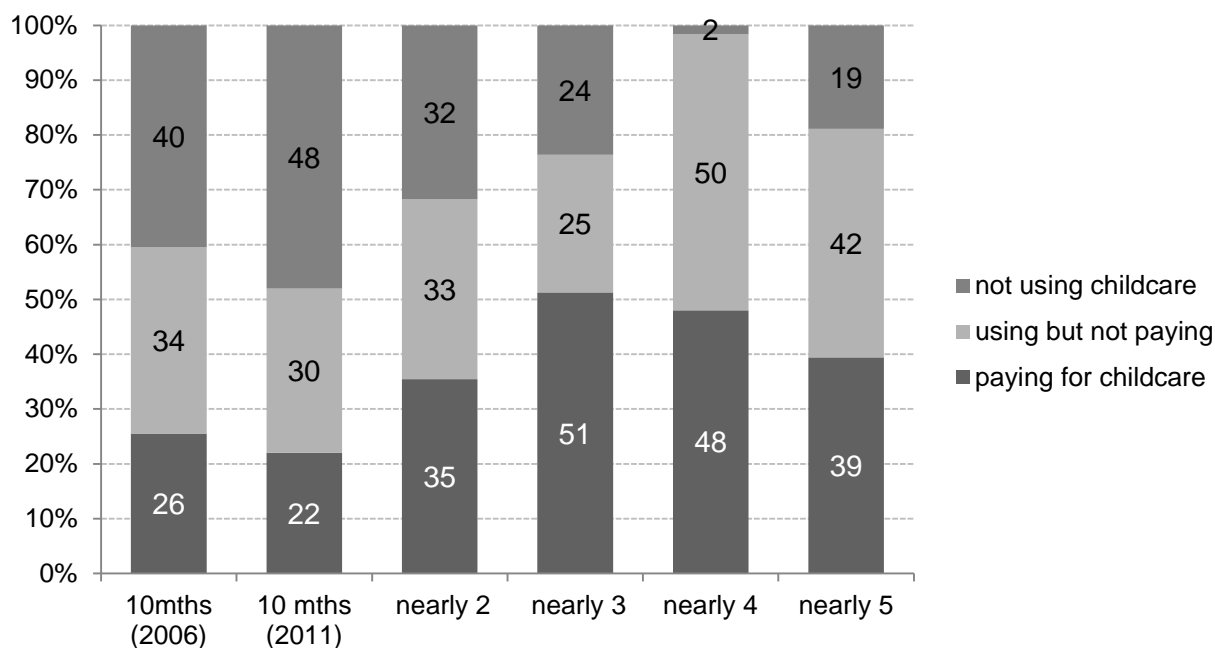
Source: Table 9.3 in Bradshaw et al (2008)

Paying for childcare

Parents are not necessarily paying for all this childcare - many rely on relatives, particularly grandparents, in combination with some kind of formal provision (Bradshaw and Wasoff, 2009). Although informal care is not always chosen for purely economic reasons, it helps to bring down costs. Informal childcare is, of course, less available to those who have moved away from their families. Research in England found that around half of parents cite cost as a reason for using informal childcare (Table 6.1 in Bryson et al, 2012), and that over a quarter of all families (26%) who paid for childcare, found it difficult or very difficult to do so. This was higher for families with only pre-school children, where around a third (34%) found it difficult or very difficult to pay for childcare (table C5.4 in Huskinson et al, 2014)

The balance between informal and formal care appears to reflect state subsidies at age 3 and 4 and the impact of starting school at 5. Figure 3 below shows that the proportion of parents paying for childcare increases in the child's first three years before decreasing as pre-school provision and school begin.

Figure 3: Using and paying for childcare, by age of child



Notes: GUS is longitudinal so the figures above relate to different years. Figures for 10 month olds are included for 2006 and for 2011. The drop in use of childcare probably relates to changes in maternity leave over this period. Source: ad hoc analysis from Growing up in Scotland

GUS surveyed parents of 10 month old children in 2011 and found that 52% used childcare, and 22% both used and paid for childcare (Bradshaw et al, 2013). The White Paper proposal for childcare only starts from age 1, so these families that pay for childcare for children under that age will not be covered. The average amount paid for childcare in this group was £88 per week. Within this, costs paid varied considerably - 7% paid up to £20 per week, 23% paid between £21 and £50 per week, 36% paid between £51 and £100, and 33% paid over £100. This suggests that 7% of parents of 10 month old children paid over £100 per week for childcare in 2010/11. While many mothers will still be on maternity leave when their child is under 1 year old, there are some families that are paying considerable amounts for childcare, even at this age.

Research in England in 2012/13 (Huskinson et al 2014) found that the average spent on childcare for families with pre-school children was £94 per week. The median (middle value) was £74 per week, suggesting a very large range of payments with some being very high. Table 6 below shows how average spend varied by family work status, income and age of

children. In all of these categories there is a large difference between the mean and median payments.

Table 6: Average spend on childcare by work status, income and child's age, 2012/13

	Median	Mean
Family work status		
Couple – both working	32	62
Couple – one working	14	40
Couple – neither working	9	19
Lone parent – working	27	54
Lone parent – not working	10	30
Family annual income		
Under £10,000	14	40
£10,000 - £19,999	12	32
£20,000 - £29,999	22	42
£30,000 - £44,999	21	42
£45,000+	42	78
Age of children		
Pre-school child(ren) only	74	94
Pre-school and school-age children	28	62
School-age child(ren) only	15	32

Source: Huskinson et al 2014 Additional tables, C5.2.

SUPPLY OF FORMAL CHILDCARE

The previous section of this briefing indicated that families tend to use a mixture of informal and formal childcare and that a family totally reliant on formal childcare can face high costs. Formal childcare includes a variety of different kinds of provision across the private, public and voluntary sectors. Partly, this reflects the different purposes of childcare provision – some of which focuses on education, some on supporting vulnerable families (family centres) and some on childcare (childminders). There have been significant efforts to improve quality – in particular through requiring staff to have particular qualifications. However, pay remains low. Also, in spite of high costs for many parents, many private sector nurseries operate below capacity and do not make a profit (NDNA 2014).

TYPES OF PROVISION

Early education and childcare is delivered in a variety of settings. Some children will be registered with more than one childcare provider. This is particularly likely for 3 and 4 year olds who may need to attend different providers in order to access their pre-school education entitlement. The main types of provider are nurseries catering for pre-school children and childminders. Out of school care, play-groups, holiday care schemes and family centres are less common.

In 2012, there were over 10,000 childcare services in Scotland, nearly three quarters (71.5%) of which were in the private sector. This dominance of the private sector is mainly due to the fact that all childminders and nearly a third of nurseries are private businesses. Although childminders are the most common type of service, each caters for only a small number of children. Consequently, the most common type of service attended by children is nurseries (131,730 attendees). Most (61%) nurseries are run by local authorities, although nearly a third (31.5%) are private. The 'not for profit' sector dominates provision of playgroups, holiday playschemes and out of school care clubs. However, these are all less numerous than either nurseries or childminders.

Some childcare providers deliver pre-school education/early learning. In general, this is delivered through nurseries. Local authorities can contract with private and voluntary sector providers to deliver pre-school education as 'partner providers.' Nationally, nearly half of the services providing pre-school education are 'partner providers' (although this proportion varies considerably by local authority) (Scottish Government 2013a). The National Day Nurseries Association's 2014 survey (NDNA, 2014) found that 87% of private nurseries said that the funding received from local authorities for this provision (the 'partner provider rate') did not cover their costs. The average funding received from local authorities was £3.80 per child per hour. The lowest rate reported was £2.80 per child per hour

Table 7: Supply of childminders and children's day care, 2012

Type	Services	% public	% voluntary	% private	Average capacity per session	Total children attending
Childminder	6,274	0	0	100%	6.1	30,390
Daycare:	3,825	45.2%	26.5%	28.3%	40.6	191,270
Of which:						
Nursery	2,458	60.8%	7.6%	31.5%	43.3	131,730
Out of school care	686	12.8%	54.9%	32.3%	39.8	34,530
Playgroup	351	0.9%	88.0%	11.1%	23.0	8,500
Family centre	140	62.1%	33.6%	4.3%	50.4	8,600
Crèche	98	35.8%	36.8%	27.4%	35.4	3,710
Holiday playscheme	53	30.8%	57.7%	11.5%	36.2	2,270
other	39	10.3%	66.7%	23.1%	27.8	1,930

Notes: Refers to main service type only. Many settings provide more than one service. Capacity refers to capacity for a single session, so total number of children attending may be higher. Source: Care Inspectorate 2013.

SUFFICIENCY OF SUPPLY

The Family and Childcare Trust (2014) found that demand for childcare outstrips supply across the UK. Unlike in England and Wales, there is no statutory duty in Scotland for local authorities to ensure sufficient childcare in their area⁶. The best catered for are parents with 3 and 4 year olds, with over half of local authorities saying there is sufficient provision. The worst catered for are parents working atypical patterns (9%) and those in rural areas (14%).

⁶ s.6 Childcare Act 2006 requires English local authorities to ensure, so far as reasonably practical, sufficient childcare in order for parents to work or study. However, s.11, which required them to assess sufficiency of supply has recently been repealed by s.86 of the Family and Children Act 2014.

Table 8: Scottish local authorities reporting sufficient childcare for particular groups of children

Type	% local authorities
Three and four year olds	55%
Children aged 2 and under	32%
5 to 11s	32%
12 – 14s	23%
Parents working full time	23%
Disabled children	18%
Rural areas	14%
Parents with atypical work patterns	9%

Source: Family and Childcare Trust 2014b

The Family and Childcare Trust suggest that the UK wide mismatch of supply and demand is indicative of market failure (Family and Childcare Trust 2014a).

Provision of childcare is not just about the number of places but also about ensuring high quality places. The legislation covering regulation and inspection is summarised in Annexe A. Another key aspect of quality is the workforce discussed below.

WORKFORCE

Review

In February 2014, the Scottish Government announced a review of the childcare workforce (Scottish Government 2014b). This is the latest in a long running effort to increase regulation and training requirements. A previous review of the workforce in 2006 (Scottish Executive, 2006) made the following key proposals aimed at improving quality:

- managers should be educated to degree level (SCQF level 9)
- the workforce should be considered as a highly regarded, high quality, highly qualified sector with workers earnings reflecting the quality of qualifications.
- local authorities should offer increased flexibility in delivering early years and childcare services.
- to assist private and voluntary sector providers of pre-school education to recruit and retain qualified staff the Scottish Executive should fund an increase in the "advisory floor" used to inform local authority decisions about the cost of providing pre-school places.

The first proposal (managers educated to degree level) is now mandatory. A requirement for flexibility is included in the Children and Young People (Scotland) Act 2014, although its implementation will be phased. Since 2007, the Scottish Government has not recommended any particular rate that local authorities should pay their partner providers.

Pay

Although qualification requirements have been introduced (see Annexe A), pay in the sector is generally low. A survey of out of school care found the average pay for lead practitioners was £10.75 per hour for a position that requires a degree level qualification (SCQF level 9). The table below illustrates how out of school care pays less per hour than the average for jobs in Scotland requiring similar qualifications.

Table 9: Pay and qualifications in childcare and in all Scottish jobs

Out of school care			All Scottish jobs	
	Average pay	Qualification level required	Median pay	Qualification
Lead practitioner	£10.75	SCQF Level 9 (degree)	£15.50	Degree
Practitioner	£8.12	SCQF Level 7 (HNC)	£10.41	A level or equivalent
Support worker	£7.43	SCQF Level 5 (National 5)	£8.40	GCSE A – C or equivalent

Sources: Scottish Out of School Care Network (2013), SSSC (online), ONS (2014), SCQF (online)

Pre-school teachers

Until 2003, nursery classes in local authorities were required to employ a teacher⁷. Since this was repealed in 2003, the number of teachers employed in nurseries has fallen. In 2006/07 there were 1,686 whole time equivalent (WTE) GTCS registered teachers in pre-school centres, compared to 1,256 WTE in 2013 (Scottish Government online b). Whereas a ‘lead practitioner’ in out of school care is paid around £10.75, a teacher (at the mid point of the scale) is paid £15.82 (£28,794 p.a) (SNCT online) .

HMIe has found that staff qualifications improve the education provided to children in pre-school settings (Education Scotland 2012): “effective practice was due in some cases to the ability to access a pre-school teacher particularly with a background in early years methodology and in others due to the increasing impact of higher qualifications for staff who achieved additional qualifications such as, the BA in Childhood Practice.”

MOTHERS AND THE LABOUR MARKET

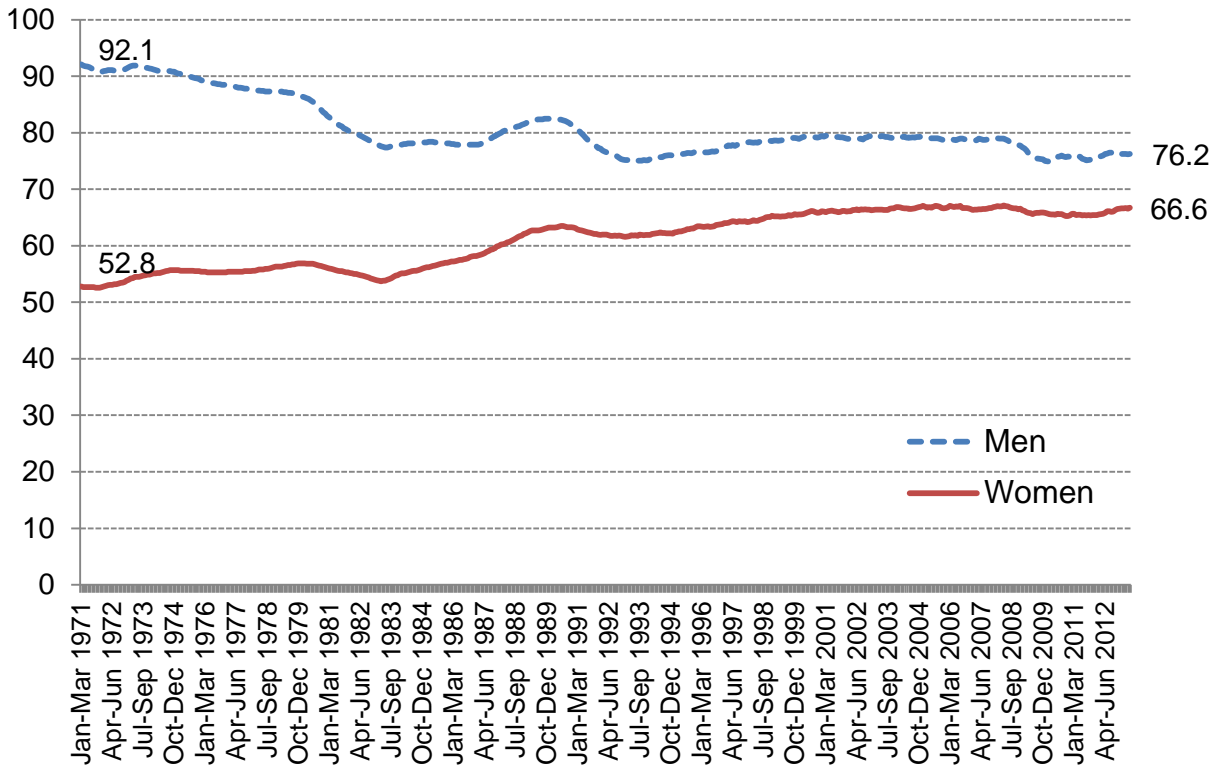
As noted earlier in this briefing, giving up work or working part time are ways of reducing the need for paid childcare. It has tended to be mothers rather than fathers who have done this. This section considers how working patterns differ by gender and parenthood, looks briefly at how this has changed over time and at different patterns across Europe. A later section looks at how the Scottish Government has modelled increases in labour market participation rates.

EMPLOYMENT RATES

In the UK over the last forty years, there has been a large growth in the proportion of women employed rising from 52.8% in 1973 to 66.6% in 2013. Figure 4 below shows that the gap between women and men’s employment rate narrowed considerably in the 1970’s and 1980’s. Since the 1990s, the difference between men and women’s employment rate has not changed dramatically.

⁷ Regulation 5(2) Schools (Scotland) Code 1956

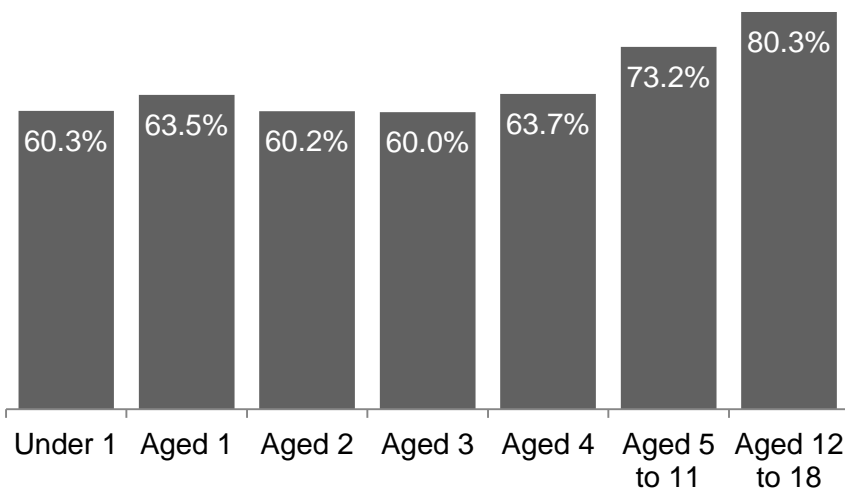
Figure 4: UK employment rate by gender, 1971 to 2013.



Source: ONS 2013a

The current women’s employment rate in Scotland is 69.8% (for the period October to December 2013) (Scottish Government, 2014c). In comparison, the employment rate for mothers is between 60 to 63% for those with children under five, rising to 73% for those with primary school aged children and 80% for those whose youngest child is in secondary school (Scottish Parliament 2014b).

Figure 5: Employment rates for women by age of youngest dependent child



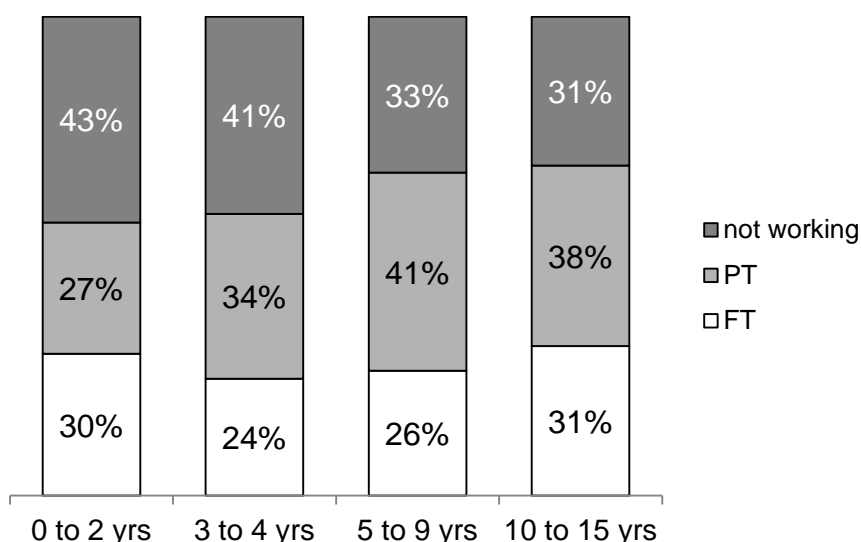
Source: Scottish Parliament 2014b

WORKING PATTERN

The employment rate only measures whether a person is in work - it does not reflect the number of hours worked. A parent may choose to do part time work in order to combine work and childcare. However, part time work tends to attract lower hourly pay. On average, females working part time in Scotland work 18.9 hours per week and the average part time female wage is £10.69 per hour (table 10, ONS 2013b). The average female part time job would therefore pay around £202 per week.

The figure below shows how mothers' employment patterns change as their children grow up. The most common arrangement (around 40% of mothers) is not working while the child is under 5 and then working part time once the child starts school. However, a substantial minority work full time – almost a third (30%) of those with children under 2 (this will include those on maternity leave), around a quarter of those with 3 to 9 year olds and nearly a third (31%) of those with 10 to 15 year olds.

Figure 6: % of mothers not working, working part time and full time, by age of child 2012



Source: *Thompson et al, 2014*

In a two parent family, in theory both partners could work part time. Very few couples do this despite the fact that, where hourly wages are relatively similar, it is more tax efficient for both parents to reduce their hours than for one to stop working.

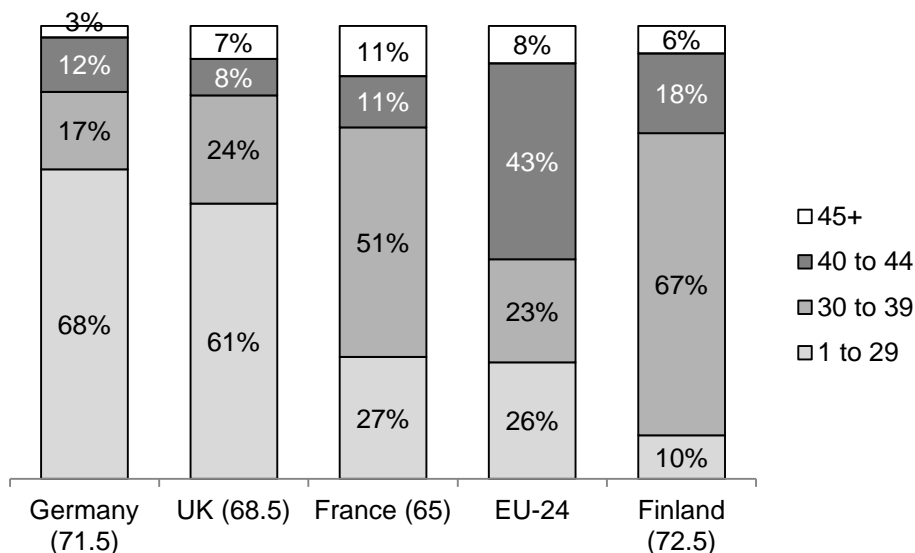
However, continuing to work after maternity leave is associated with higher wages and more secure employment in the longer term (Stewart 2011). Stewart (2011) found that many mothers move in and out of different jobs while their children are young and that this had a long term effect on their wages. Working just to pay for childcare while the children are young, might have benefits later on in terms of lifetime earnings - particularly for higher qualified women. Pension and National Insurance contributions are also important work benefits that would need to be considered.

Working patterns in the EU

UK working patterns are not the norm across Europe. On average in the EU, if a mother works, she works more than 30 hours a week. The figure below shows the distribution of working hours for mothers with two children under 15 years. The UK is similar to Germany in the large proportion of mothers working fewer than 30 hours a week. There is considerable variation between countries - a few examples are given in the figure below. For example, fewer than

10% of Finnish working mothers work part time compared with over two thirds of German mothers.

Figure 7: Working hours of women with 2 or more children under 15 years.



Source: OECD 2014. Table LMF 2.2E n.b base - mothers who work. Data from 2008. Figure in brackets is women's employment rate.

While it is very unusual in the UK for men to reduce their working hours when they have children, more than a third of Swedish fathers do so. Some countries with extensive childcare provision still have large gender differences in the proportion of men and women reducing working hours to care for children. The UK is similar to Austria, in having a very large gender gap (over 30 percentage points) as well as a low proportion of fathers reducing their hours of work (less than 10%).

Table 10: % saying they reduce working hours to care for child aged under 8 years

	Women	Men	% point difference
Germany	59.4%	13.6%	45.8
Netherland	47.7%	14.6%	33.1
UK	41.7%	9.2%	32.5
Austria	37.5%	5.4%	32.1
Iceland	45.6%	17.9%	27.7
EU-15	34.1%	7.8%	26.3
Ireland	31.1%	4.9%	26.2
EU-27	30.7%	6.8%	23.9
France	28.2%	6.6%	21.6
Slovenia	27.5%	11.3%	16.2
Finland	16.7%	5.6%	11.1
Denmark	12.4%	3.9%	8.5
Norway	18.1%	9.8%	8.3
Sweden	44.5%	36.4%	8.1

Source: derived from European Labour Force Survey, 2010

EFFECTS OF CHILDCARE REFORMS IN OTHER COUNTRIES

There is a substantial literature on the links between childcare provision and maternal employment. However, the evidence is mixed on the degree to which childcare reform actually causes an increase in maternal labour supply. Most studies find that an increase in subsidised childcare is associated with an increase in mothers' employment although the size of the effect varies considerably. While reducing the price of childcare does tend to result in more childcare being bought, this does not always translate into a large increase in the numbers of mothers working.

In some cases, it appears that parents change from using informal care to formal care rather than significantly increasing their total childcare use. Other reasons that a weak link might be found between childcare provision and work might include inflexibility in the way childcare subsidies are delivered (such as requiring nursery care to be taken in 2 ½ hour blocks or having to pay childcare costs upfront and then being reimbursed for them) and diminishing returns as many women who remain outside the labour market do so for non-economic reasons (Brewer et al 2014).

Thompson and Ben-Galim (2014) note the correlation between affordable childcare and high levels of maternal employment and argue that: "International examples of childcare reforms that have had a large positive effect on maternal employment are often characterised by full or close to full time hours of publicly provided care."

The following looks briefly at research on reforms in Spain, Norway and Quebec.

Spain

Spain has a high rate of unemployment and a low maternal employment rate. Many women leave the labour market when they have children and do not return to it.

In the 1990s, 9 to 5 care, five days a week, was provided for 3 year olds. Prior to this reform, labour force participation of mothers whose youngest child was 3 was 29.3%. Following the reform, the number of childcare places for 3 year olds increased from 33,128 to 154,063. The maternal employment rate for mothers of 3 year olds increased by 2.3 percentage points (a relative percentage increase of 7.9%) (Nollenberger and Rodriguez-Planas, 2011). The authors note that this is double the increase found by Havnes and Mogstad (2009) in their study of childcare reform in Norway in the 1970's.

Norway

In 1975, Norway introduced extensive childcare reform. Between 1975 and 1985 the child care coverage rate in Norway increased from around 10% to around 40%. At the same time, female employment increased from 40% to 73% (Hardoy and Schone, 2013).

In 1976, a year after the reform, the maternal employment rate was 24.5% in municipalities which had implemented the reform, a difference of less than 1.8 percentage points with those which had not done so. The municipalities which implemented the reform, "were able to induce less than 765 mothers to work by facilitating the supply of an additional 17,500 childcare places."

Havnes and Mogstad (2009) concluded that, although the reform led to increased use of formal childcare, it did not result in many more women taking up employment. Instead of causing the increase in mothers' labour supply, subsidized child care in Norway mostly crowded out informal child care arrangements. It was clear that some other factor must have been driving employment change.

The balance of informal and formal care in the UK, discussed above, is therefore an important element in considering the possible impact of childcare reform.

In 2004, Norway introduced a cap on the price of full time daycare of US\$460 per month. This was reduced further to US\$380 per month in 2006. This was equivalent to 7.5% of the mean monthly household income after tax. Hardoy and Schone (2013) found that, even though Norway already had one of the highest female employment rates in the world by this time, maternal employment increased by 3 to 4 percentage points (or approximately 5%). It did not however, lead to women already in employment increasing their working hours.

In contrast, a similar price cap reform in Sweden in 2002 had little effect (Lundin et al, 2008 quoted in Hardoy and Schone 2013). Hardoy and Schone suggest that the difference might be due to the fact that Sweden already had low childcare prices and full childcare coverage prior to the reform being introduced.

Quebec

Quebec introduced \$5 a day childcare in 1997 (since increased to \$7 a day). Lefebvre et al (2011) found that:

“the policy has significantly increased the labour force participation and annual weeks worked for mothers with at least a child aged 1 to 4 years compared to mothers in the same situation in the rest of Canada.”

Specifically,

“In 2002, the effects on participation, earnings, annual hours and weeks worked of the childcare policy are respectively between 8.1 and 12 percentage points, \$5,000-\$6,000 (2001 dollars), 231 to 270 annual hours at work, and 5 to 6 annual weeks at work.

In 1994, 45% of all children aged 1 to 4 were in childcare and, of these, 68% were in childcare for more than 21 hours per week; in 2006, 74% were in childcare and 83% for more than 21 hours per week. So, not only were more children in childcare but they were there for much longer.

As in Norway, more childcare places were taken up than mothers starting or returning to work. Baker et al. (2008) found that despite a large increase in maternal labour supply, there was still a significant substitution of formal for informal care “it is notable that the impact of the program on labour supply is only about half as large as the impact of the program on child care utilization.” In other words, for every additional mother in work, there was more than one extra formal childcare place created. This has implications for any policy seeking to use the extra tax revenue from employment as a means to offset the cost of creating more childcare places.

Possible reasons for mixed results

Commenting on the difference between their findings for Spain and those for Norway, Nollenberger and Rodriguez-Planas consider that they: “are most likely due to differences in access to informal childcare, as well as in labour market institutions”. They suggest that: “we need to be cautious when making conclusions on the effects of alternative family friendly policies.”

Comparing their findings that childcare reform had very little effect on employment rates in Norway with apparently large effects in Quebec, Havnes and Mogstad comment that: “It is likely that at least part of the discrepancy in the estimates can be explained by differences in the populations studied, the local labour market conditions and the availability and cost of informal

care arrangements.” Again, commenting on the Quebec study, Mogstad points out that “the trend in maternal employment is significantly different in Quebec from the rest of Canada prior to the reform” and that “there were other policy changes happening at the same time which may also have impacted on employment rates.”

Although Havnes and Mogstad found the argument linking the availability and cost of childcare to maternal employment to be weak, they considered childcare reform to be important for other reasons, such as equity and child development.

SURVEYS IN THE UK

As the previous section demonstrates, research in other countries on the effects of childcare reforms on the labour market participation of mothers produced a range of different results. It is difficult, therefore, to directly extrapolate from this research to predict the likely impact of similar reforms in the UK, except perhaps to say that significantly increasing the provision of low cost childcare is likely to increase maternal employment to some degree, and there is also likely to be some level of substitution of informal care by formal care.

Another source of evidence on the relationship between childcare provision and labour market participation is surveys which ask mothers whether more affordable childcare would affect their employment decisions. While it is clear that the responses people give to surveys do not always reflect what they would do in real life, such surveys do provide useful indicators of behaviour.

A survey carried out in England in 2008 looked at employment decisions immediately following parental leave and found that 30% of mothers who had not returned to work after maternity leave said they might do so if help with childcare was offered (La Valle et al, 2008).

The most recent sweep of the ‘Growing up in Scotland’ research asked parents of 10 month old children who worked less than 20 hours per week how much they agreed or disagreed with the following statement: “If I could afford good quality childcare which was reliable and convenient, I would work more hours.” A third agreed or strongly agreed (Bradshaw et al, 2013).

A more recent survey in England (2012) is particularly interesting because it asked directly about government childcare subsidies. This found that 30 to 31% of parents of pre-school children said they would be very likely to start work or increase their hours if the government subsidised the extra cost of childcare (Table 5.9, Bourg and Stocks, 2012).

WHITE PAPER PROPOSALS

The Scottish Government's White Paper 'Scotland's Future' set out its proposals to significantly extend provision of early learning and childcare should the SNP form the first government in an independent Scotland (Scottish Government, 2013b). The proposals are set out in three stages:

- **Stage 1** – in the first budget: provide 600 hours of childcare per year to around half of Scotland's two year olds (those whose parents receive working tax credit or child tax credit)
- **Stage 2** – by the end of the first Parliament: provide 1,140 hours of childcare a year to all three and four year olds and vulnerable two year olds (the Scottish Government has clarified that provision at this stage would be available to 48% of two year olds (the same group who would be eligible to the provision proposed in Stage 1) (Scottish Government, personal communication)
- **Stage 3** – by the end of the second Parliament: provide 1,140 hours of childcare a year to all children from one to school age

WHITE PAPER COSTINGS

The Scottish Government estimated that achieving stage 1 would require, an additional £100m per year and the second stage a further £600m i.e. an additional £700m in total. (Scottish Government, 2013c). These estimates are against a baseline of 600 hours provision for all 3 and 4 year olds and 3% of two years olds. At the time of the publication of the White Paper, this was the level of provision that was expected to be in place following the 2014 Children and Young People (Scotland) Act. Estimates for the third stage of expansion were not provided.

SPICe estimates

SPICe has estimated the additional costs for Stage 3 at £1.2bn, again against a baseline of 600 hours provision for 3-4 year olds and 3% of 2 year olds, based on costings presented in the financial memorandum to the Bill which preceded the 2014 Act. (Scottish Parliament 2013a).

Since publication of the White Paper, the Scottish Government has announced an expansion in provision for two year olds (see Table 2). In a full year, this is estimated to cost around £60m (Scottish Parliament, 2014c). Accordingly, the estimates of additional costs presented in Table 11 below would be lower by this amount if considered against this revised baseline.

Table 11: Early learning and childcare policy cost estimates

Timescale	Provision	Estimated additional cost £m	Estimated additional hours (millions)
Stage 1: First budget	600 hours childcare for half of two year olds	100	15.6
Stage 2: End of first Parliament (assumed to be 2020)	1,140 hours for half of two year olds and all 3 and 4 year olds	700	95.1
Stage 3: End of second Parliament (assumed to be 2024)	1,140 hours for all 1 to 4 year olds	1,200	203.3

Notes: additional costs and hours are relative to baseline position originally set out in C&YP Bill i.e. 600 hours childcare for 3-4 year olds and vulnerable 2 year olds; estimates of additional hours are based on population forecasts for 2016, 2020 and 2023 respectively (current population estimates by age do not go beyond 2023)

Sources: Scottish Government <http://www.scotland.gov.uk/Resource/0043/00439259.pdf> and SPICe calculations

Both the Scottish Government and the SPICe estimates are based on a number of assumptions and varying any of these will have an influence on the resulting cost estimates. The assumptions in the SPICe estimate (including hourly costs, levels of uptake and population) are provided in Annexe B. The Scottish Government has not published details of the assumptions underpinning its estimates.

The effect of varying the assumptions on hourly costs, uptake rates and population results in cost estimates for Stage 3 of the proposals varying from £0.9bn to £1.5bn for providing 1,140 hours of childcare to all 1 to 5 year olds (see Table 12 below).

As before, all costs are additional relative to the original provisions in the Children and Young People (Scotland) Bill. The majority of the estimates presented are based on 2023 population estimates as the proposals are due to be implemented in the second Parliament of an independent Scotland and 2023 is the furthest ahead for which these population estimates are available (see Annexe C). As with all previous estimates, they do not include any estimates for capital costs.

It should be noted that these scenarios are illustrative only and are given to demonstrate the impact of varying assumptions on the resulting cost estimates.

Table 12: Estimated cost of Stage 3 of proposed early learning and childcare provision

Scenario	Parameters	Estimated additional cost, £m	Estimated additional hours per year (millions)
Baseline	Hourly cost: £5.90 Uptake: full Population: 2023	1,200	203.3
Low hourly cost	Hourly cost: £4.25 Uptake: full Population: 2023	860	203.3
High hourly cost	Hourly cost: £7.55 Uptake: full Population: 2023	1,540	203.3
Lower uptake	Hourly cost: £5.90 Uptake: 50% for 1 year olds; 70% for 2 year olds; 100% for 3-4 year olds Population: 2023	874	148.1
Lower population base	Hourly cost: £5.90 Uptake: full Population: 2016	1,145	194.0

Source: Scottish Government <http://www.scotland.gov.uk/Resource/0043/00439259.pdf> and SPICe calculations

SCOTTISH GOVERNMENT ECONOMIC ANALYSIS

The Scottish Government published analysis (Scottish Government 2013c and 2014d) looking at the effects of an increase in the female labour market participation rate. The scenarios are summarised in Table 13 below.

Table 13: Summary of Scottish Government modelling scenarios

	Female Activity Rate	% point change in female activity rate	Level change in female activity	% change in total activity level
2 percentage point increase (Match Finland)	73.9%	2.0	35,000	1.3%
Match Norway	75.8%	3.9	68,000	2.6%
Match Sweden	77.9%	6.0	104,000	4.0%

Source: Scottish Government 2013c

The analysis looks at the effect of an increase in total labour market participation based on raising female employment to match levels found in Finland, Norway and Sweden. This would imply an additional 35,000, 68,000 and 104,000 women respectively moving from economic inactivity into the workforce (either employed or unemployed).

The analysis suggests that increasing the female labour market participation rate by 6 percentage points could benefit Scotland's economy by £2.2 billion and increase tax revenues

by £700 million over the long term. This is based on the effect on tax and output of increasing the overall labour market participation level (men and women combined) by 4 per cent.

The Scottish Government states that the modelling makes no assumptions about whether the SNP childcare policy would actually cause such an increase in female labour market participation. The document states that the analysis:

“... illustrates the impact of a boost in female participation rates rather than a specific policy. The specific proposal will have its own unique implications for the economy and budgetary impacts. These are not simulated here.”

As such, the three scenarios outlined in the Scottish Government’s economic analysis present what might happen **if** female labour market participation increased to Nordic levels, but do not make any attempt to comment on **whether** such outcomes are likely. No evidence is presented suggesting that the White Paper’s childcare commitment would result in Scotland’s female participation rate matching that of Sweden’s (with 104,000 inactive women entering the workforce).

The analysis does not set out any information on the current labour market situation of women with children. This would help provide a context for assessing the extent to which a lack of childcare is a barrier to workforce participation for women and how women may respond to an expansion in childcare provision. The previous section of the briefing looked at research findings relating to these issues which can provide some insight into potential policy responses. Current labour market data are set out below.

In 2011, there were around 207,000 mothers of working age with dependent children aged between 1 and 5 of which 129,000 (62.3%) were in work (Figure 8 below). Of those who were not working, 15,000 were unemployed women looking for work and 64,000 were ‘inactive’⁸. Most of the inactive women cited “looking after family, home” as the main reason for their inactivity⁹ of which 14,000 said they would like to work (including those looking for work but unavailable to start work).

⁸ Inactive people include those who are not in work, but who do not satisfy all the criteria for International Labour Organisation (ILO) unemployment (wanting a job, seeking in the last four weeks and available to start in the next two) such as those in retirement and those who are not actively seeking work.

⁹ This may overstate the number of working age women that are inactive due to childcare commitments. Women citing “family, home” as the main reason for inactivity include caring commitments to family members other than dependent children.

Figure 8: Labour market status of women (aged 16-64) with dependent children (age 1-5)

All women (aged 16-64) with dependent children (age 1-5): 207,000



Economically active: 144,000

In employment: 129,000



Looking for work (unemployed): 15,000



Economically inactive: 64,000



Of which: 52,000 are looking after family/home



Of which: 14,000 would like to work



Source: Annual Population (Household) Survey (Jan-Dec 2011), analysis by SPICe

Interpretation of modelling results

The modelling looks at the effect of moving women from economic inactivity to economic activity. As set out above, a 2 percentage point increase in the female participation rate from 71.9% to 73.9% would imply 35,000 extra women in the labour force in Scotland. The other modelled scenarios – 3.9 and 6 percentage point increases in the female participation rate would imply an additional 68,000 and 104,000 economically active women respectively.

Figure 8 shows that there are currently 64,000 economically inactive women in Scotland with children aged 1-5. The second and third of the Scottish Government’s modelled scenarios require 68,000 and 104,000 inactive women to enter the workforce. In order to achieve the modelled scenarios, the policy would need to influence the labour market decisions of a larger group of women, which could include:

- women who do not currently have children or who have children aged under 1 year or over 5 years
- future groups of women, either before or when they have children (which could extend the timescale of the impact)

Deadweight Effect

The childcare commitment applies to all families, regardless of their current use of childcare. Given that many women likely to benefit from the childcare policy are already economically active (in work or looking for work), the policy's deadweight effect is potentially high. HM Treasury's [Green Book](#) defines the deadweight effect as "... outcomes which would have occurred without intervention." (HM Treasury 2011).

In this case, deadweight would relate to women who are already paying for childcare and who continue to use the same amount of childcare following the change in policy. The Scottish Government would effectively be paying for childcare that was previously being purchased by parents/carers. There is no change in the amount of childcare, just a change in who is paying for it. Although this would alter the spending power of the women affected, as they would no longer be paying for all or some of their childcare, it would not affect their labour market status.

The Scottish Government's economic analysis states that 212,000 families will benefit from the policy, similar in scale to the 207,000 women with children aged 1-5 shown in Figure 8. Figure 8 shows less than a third (31%) of women likely to benefit from the childcare commitment are inactive and just 7% would like to work and cite "looking after family, home" as the main reason for inactivity.

Increasing working hours

The modelled scenarios show the impact of an increase in the supply of labour resulting from more women entering the workforce. This is based solely on the movement of women from inactivity to activity. The policy may also affect the working patterns of those already in work e.g. by encouraging mothers currently working part-time to increase their hours. Such changes would affect the overall number of hours worked by women, but not the labour market participation rate. The latest APS data (Oct 2012-Sep 2013) suggests 41.6% of women in employment are working part-time. This proportion is even higher for mothers of young children (Figure 6). The change in number of hours worked (rather than the participation rate) would provide a more accurate measure of the increase in labour supply as it would reflect the possibility that some of the change might come through increased part-time hours for those already in work.

Gender differences

The Scottish Government uses a model known as 'CGE' (Computable General Equilibrium) to consider the impact of policy changes. This considers the supply of labour as a whole. Matching the Swedish female activity rate is associated with an additional 104,000 active females. This represents an increase in the overall activity (male and female) level of 4%. The Scottish Government's model therefore considers the tax and benefits effect of increasing total labour supply by 4.0%, rather than the specific effect of increasing either female or maternal labour supply.

The additional labour supply is assumed to enter the workforce supplying the same average hours as the existing labour supply (in work). This raises the issue of whether it is reasonable to assume that the labour market characteristics of women are the same as those of the existing labour supply (both men and women)

In 2013, women's gross average hourly pay was 17% lower compared to men and the average weekly hours worked was 21% lower. The effect of lower wages and fewer hours worked combined to produce a gap of 37% in women's gross average annual pay compared to men ([ASHE](#)) data for 2013.

Eurostat publish [gender pay statistics](#) with the latest data (2012) showing a gross hourly gender pay gap¹⁰ of 15.9% for Sweden and 15.1% for Norway compared to 19.1% for the UK (Eurostat online 2014). This suggests that a gender pay gap could persist even with higher female labour market participation.

Qualifications of the economically active

The choice to look for work is influenced by the earning potential of individuals. It is therefore reasonable to assume that most economically inactive females will have lower earning potential compared to active females. Table 14 shows around one in fourteen (7%) women in the workforce have no qualifications compared to nearly one quarter (23.9%) of inactive women.

Table 14: Proportion of men/women with no qualifications (age 16-64)

Indicator	Women	Men	Total
Economically active	7.0%	6.7%	6.8%
Inactive	23.9%	21.8%	23.4%
All	11.9%	9.4%	10.7%

Source: Annual Population Survey (Jan-Dec 2012), analysis by SPICe

The modelling assumes that inactive women entering the workforce have the same characteristics as the existing workforce. Over the long term, the childcare policy might act to reduce some of these differences. However, at present there are clear differences in earnings of men and women and in the qualifications of the economically active and economically inactive.

Timing of impacts

The results shown in the Scottish Government's analysis are described as "long-term". A previous [Scottish Government report](#) (Scottish Government 2011) using the same model outlined "long-term" as twenty years or more. The length of time taken for additional tax revenues to arise will depend on the timing of the different stages of the policy and how quickly women respond to the policy. This may have implications for the funding of the policy, particularly over the short-term.

Wider impacts

The modelled scenarios demonstrate the economic benefits associated with increased female workforce participation. Wider benefits from the childcare commitment may also have an impact on the economy or raise tax revenues but are more challenging to quantify. The cultural and social change that may arise from a significant increase in the number of women in the workforce has not been captured. Productivity rates could improve and there could also be longer term impacts on income inequalities and fertility rates. In addition, the CGE modelling does not capture the effect of increased spending power for women who currently pay for childcare, or for those gaining employment in the additional childcare jobs created. These effects could be substantial, but are not reflected in the results presented.

¹⁰ The unadjusted gender pay gap represents the difference between average gross hourly earnings of male paid employees and of female paid employees as a percentage of average gross hourly earnings of male paid employees.

Detail of results

The modelling exercise provides a broad indication of the direction and scale of impacts across Scotland's economy resulting from an increase in female workforce participation. However, it does not provide a detailed assessment of the change in employment or wages or any indication of the composition of additional tax revenues.

For example, given the increased supply of labour, the modelled results would be expected to show downward pressure on real average wages. This could have wider implications for the labour market and on incentives for women to enter the workforce.

In addition, the modelled results would be expected to show an expansion in employment in all sectors, with those which are more labour intensive, showing more growth. The more labour intensive sectors in Scotland's economy are mainly service sector¹¹.

Structure of the CGE model and demand for labour

The CGE model is based on 2006 Social Accounting Matrix (SAM) data (Scottish Government 2011). Scotland's economy and labour markets have changed significantly since 2006 and this would have some implications for the modelled results. However, the significance of this effect is not possible to quantify.

Sensitivity analysis

Across the three scenarios presented by the Scottish Government, a one percentage point increase in the overall participation rate raises GDP by around £540 million and tax revenues by around £160 million.

As outlined earlier in this briefing the estimated costs associated with Stage 3 of the White Paper proposals are £1.2 billion (based on the mid-point of the estimates set out in Table 12). On the basis of the data available from the Scottish Government's economic analysis and assuming a broadly linear relationship between outcomes and changes in participation rates, the female participation rate associated with additional tax revenues of £1.2 billion is 80-85%, an increase around 10 percentage points. It should be noted that, as the participation rate increase becomes higher it is less likely that the link will remain linear as tipping points are reached in the economy and labour market, so this provides a broad indication of the scale of change that might be required, rather than a modelling of this scenario.

¹¹ The latest Scottish [Annual Business Statistics](#), identifies education, human health and social work activities (section P-Q) and accommodation and food service activities (Section I) as the most labour intensive activities in Scotland's economy (measured by the ratio of employment to turnover).

ANNEXE A: LEGISLATIVE CONTEXT

Scottish Legislation

Children's daycare is registered and inspected by the Care Inspectorate under Part 5 of the Public Services Reform (Scotland) Act 2010. The Care Inspectorate inspects children's day care and the care elements of pre-school education using the [National Care Standards](#). The ratio of adults to children in childcare is set by Scottish Ministers as part of these. Settings that provide education are also inspected by HMIE (part of Education Scotland). Between 2008 and 2012, 92% of centres inspected received a positive report ([Scotland Performs](#))

The workforce is regulated by the Scottish Social Services Council under the Regulation of Care (Scotland) Act 2001. Staff must obtain certain qualifications in order to register. This already applies to managers and practitioners and will apply to support workers from June 2014. It does not however apply to childminders. While they must register their service with the Care Inspectorate, they do not have to register with the SSSC or hold specific qualifications.

In terms of supplying early education and childcare, local authorities have duties to provide:

- early education and childcare to certain 2 year olds (from August 2014, under Part 6 of the Children and Young People (Scotland) Act 2014 (the 2014 Act)
- pre-school education to children from the term following their 3rd birthday¹² (since 2002 under s.1 Education (Scotland) Act 1980). Eligibility is currently defined in regulations under the Standards in Scotland's Schools etc Act 2000, but from August 2014 it will be defined by Part 6 of the 2014 Act and associated regulations and will be termed 'early education and childcare.'
- daycare to children in need¹³ aged under five under s.27 of the Children (Scotland) Act 1995 (the 1995 Act)
- holiday and out of school care to children in need who are of school age, under s.27 of the 1995 Act

Local authorities must make children's services plans under the 1995 Act. This is replaced with the following duties in the 2014 Act:

- produce a joint plan with health boards for children's services
- consult every 2 years and produce a plan for providing early learning and childcare and daycare for children in need (s.46 – 49B)
- plan early education and childcare services with regard to ensuring they are flexible enough to allow parents an appropriate degree of choice. (s.48)

UK Legislation

Relevant UK legislation covers employment rights, welfare benefits and tax relief.

Parental Leave

While there is entitlement to a year's maternity leave, Statutory Maternity Pay is 90% of earning for six weeks then up to £136 a week for 33 weeks. The remaining 13 weeks are unpaid,

¹² The difference in the total months of entitlement for children born in autumn/winter compared to those born in spring and summer has been highlighted by Reform Scotland. See: http://reformscotland.com/public/publications/An_Equal_Start-Fair_access_to_nursery_provision.pdf

¹³ Children in need' are those who are unlikely to have a reasonable standard of health or development unless services are provided under the 1995 Act, including disabled children, children affected by the disability of a family member and children 'looked after' by the local authority (s.93, 1995 Act)

although some employers supplement this with more generous schemes. Currently, paternity leave is up to 2 weeks and an additional 26 weeks if the mother has returned to work. From 2015 it is proposed that, after the first 2 weeks, the remaining 50 weeks of leave will be able to be shared between the parents ([BISS 2013](#)). Women who do not qualify for statutory maternity pay may be entitled to Maternity Allowance for up to 39 weeks, which is paid through the Benefits Agency rather than by employers.

Parents have the right to apply for flexible working and have the right to time off to deal with issues such as a child's illness (Employment Rights Act 1996). They are also entitled to 18 weeks parental leave up to the child's fifth birthday (Maternity and Parental Leave etc. Regulations 1999). There are proposals to extend this to the child's 18th birthday ([BIS 2012](#)).

Childcare subsidies

Childcare voucher schemes run by employers offer tax relief on childcare costs under the Income Tax (Earnings and Pensions) Act 2003. Parents on working tax credit can claim a proportion of childcare costs. Similar provision is made for those on universal credit.

ANNEXE B: ASSUMPTIONS UNDERPINNING COST ESTIMATES

The main variables that impact on estimates of the costs of childcare policy are:

- Average hourly rates
- Assumed levels of uptake
- Population estimates

Hourly rates

The assumed hourly rate for childcare or nursery provision is one of the main determinants of cost estimates. Table B1 shows the range of hourly rates that are either implied or explicitly stated in a variety of sources. It should be noted that, where hourly rates are implied rather than explicitly stated, the resulting figures would also depend on other underlying assumptions about uptake rates and population levels. These rates are all expressed in 2013-14 prices and are based on the costs of provision, not the price paid for childcare by parents or carers.

As highlighted by this table, the hourly rates implied or stated vary considerably and – depending on the rate assumed – could result in a wide variation in cost estimates.

Table B1: Hourly rates for childcare / nursery provision

Source	Hourly rate (£)	Notes and sources
3-4 year olds		
Scottish Government – Children and Young People (Scotland) Bill Financial Memorandum – implied hourly rates (Scottish Parliament 2013a)	£5.41 - £7.55	SPICe calculations based on staff costs, operation and support costs for additional 125 hours care for 3 and 4 year olds, using different models of provision. Assumes full uptake. Up-rated to 2013-14 prices using HM Treasury GDP deflator.
Scottish Government – Children and Young People (Scotland) Bill – recommended partner provider rates (Scottish Parliament 2013a)	£4.25	Based on uprating for inflation of £3.73 advisory floor rate set in 2007 (FM gave figure of £4.09 at 2011-12 prices; HM Treasury GDP deflator has been used to convert to 2013-14 prices)
National Day Nursery Association – evidence to Finance Committee (Scottish Parliament Finance Committee 2013)	£4.51	NDNA cited this as a rate that it would consider acceptable in terms of reimbursement by local authorities
English local authorities (Department for Education 2012a)	£4.45	Average hourly rate based on budgets for provision for 3 and 4 year olds in 2012-13
2 year olds		
Scottish Government – Children and Young People (Scotland) Bill	£4.85 - £6.68	SPICe calculations based on details provided in supplementary FM. Range reflects effect of different assumptions about

Supplementary Financial Memorandum – implied hourly rates (Scottish Parliament 2014c)		population levels. Assumes full uptake.
UK Government (Department for Education 2013)	£5.09	Basis for funding provided to local authorities in England in relation to provision for two year olds in 2013-14 (same rates are planned for 2014-15)

Assumed levels of uptake

It is unclear from the Scottish Government's published costs estimates what levels of uptake have been assumed in their calculations. Although uptake is likely to be high for 3 and 4 year olds, it is likely to be considerably lower for 1 and 2 year olds. Pre-school education data for Scotland suggest that uptake for 3-4 year olds is around 100%. (Scottish Government 2013d). As provision for 2 year olds is not currently universal, similar data are not available for this age group. Assuming lower levels of uptake would imply higher hourly rates for a given cost estimate if all other factors remain unchanged.

Population estimates

Between 2012 and 2013, the population of 1-4 year olds is expected to remain stable. However, within this, the population of 1 and 3 year olds is expected to fall by 3% while the population of 2 year olds is expected to increase by 5% (General Register Office of Scotland 2013). This means that cost estimates can vary considerably depending on which population base is used. Similarly, implied hourly rates calculated from given cost estimates will vary with different assumptions about the underlying population.

SPICe assumptions made in costing early learning expansion

- Implementation of original proposals set out in the Children and Young People (Scotland) Bill. If the revised proposals for two year olds are taken into account, the costs for the third stage would reduce to £1.1bn.
- Full uptake of available childcare provision – although this is likely to be reasonably realistic for 3 and 4 year olds, it is unlikely that parents of all 1 and 2 year olds will want to take up the free provision (or they may not take up all the hours offered). If lower uptake for 1 and 2 year olds is assumed, the total number of additional hours would reduce. This would have the effect of reducing additional costs, if all other assumptions remain unchanged.
- A set average hourly rate regardless of age – in practice, hourly costs will be higher for younger children due to the higher staffing ratios. The original SPICe estimate was based on the Children and Young People (Scotland) Bill costings for three and four year olds, which would involve lower hourly rates than for younger children.
- No additional capital costs – in reality, there will be capital costs associated with the increased provision. It is unclear whether such costs have been taken into account in the Scottish Government estimates. These would be one-off costs that would not continue indefinitely but would be concentrated in the initial years of implementation.
- Population estimates for 2012

ANNEXE C: DEMOGRAPHICS

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
0	57,284	57,886	58,564	59,165	59,664	60,012	60,264	60,435	60,523	60,558
1	57,014	57,512	58,118	58,800	59,407	59,912	60,260	60,513	60,685	60,773
2	59,076	57,192	57,695	58,306	58,992	59,605	60,110	60,458	60,711	60,883
3	60,880	59,212	57,332	57,840	58,455	59,145	59,759	60,264	60,612	60,865
4	58,026	60,990	59,326	57,450	57,962	58,581	59,271	59,885	60,390	60,739
5	59,679	58,118	61,086	59,426	57,553	58,069	58,688	59,378	59,992	60,497
6	59,470	59,759	58,201	61,173	59,516	57,645	58,161	58,780	59,470	60,085
7	57,138	59,536	59,827	58,273	61,247	59,592	57,721	58,238	58,857	59,547
8	55,971	57,187	59,587	59,881	58,329	61,306	59,652	57,782	58,299	58,918
9	55,539	56,008	57,225	59,628	59,924	58,375	61,352	59,699	57,829	58,346
10	54,518	55,571	56,041	57,262	59,666	59,965	58,417	61,393	59,741	57,871
11	52,813	54,548	55,603	56,076	57,298	59,705	60,004	58,456	61,432	59,780
12	52,691	52,837	54,574	55,631	56,106	57,330	59,737	60,036	58,488	61,464
13	54,834	52,724	52,871	54,611	55,669	56,147	57,371	59,778	60,077	58,529
14	56,246	54,886	52,776	52,927	54,667	55,729	56,207	57,431	59,838	60,137
15	58,513	56,334	54,976	52,869	53,021	54,765	55,827	56,305	57,529	59,936

source: GROS population projections. 2012 based.

2011 census that in Scotland there were 614,000 families with a dependent child:

- 38.3% youngest child aged 0 to 4 (235,162)
- 32.5% youngest child aged 5 to 11
- 29.2% youngest child aged 12 to 18

Source: <http://www.scotlandscensus.gov.uk/en/censusresults/downloadablefilesr2.html>

SOURCES

Baker, M. Gruber, J. Milligan, K. (2008) *Universal childcare, maternal labour supply and family well-being*. Journal of Political Economy, vol 116 No. 4 pp 709-745. Available at: <http://www.jstor.org/discover/10.1086/591908?uid=3738032&uid=2&uid=4&sid=21103819280063>

BBC News. (2014) *Scottish Independence: Could Scotland afford better childcare?* Available at: <http://www.bbc.co.uk/news/uk-scotland-26587040>

Bourg, I. and Stocks, A. (2012) *A survey of childcare and work decisions among families with children* DfE working paper. London: DfE. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/221221/WP114.pdf

Bradshaw, P., Cunningham-Burley, S., Dobbie, F., MacGregor, A., Marryat, L., Ormston, R., Wasoff, F. (2008) *Growing up in Scotland: Sweep 2* Edinburgh: Scottish Government. Available at: <http://www.scotland.gov.uk/Publications/2008/02/12135003/0>

Bradshaw, P. and Wasoff, F. (2009) *Growing up in Scotland: Year 3 – multiple childcare provision and its effects of child outcomes*. Edinburgh: Scottish Government. Available at:

Bradshaw, P., Bromley, C., Hill, T., Mabelis, J., Parkes, A., Smith, K., Sweeing, H., Warner, P., Wight, D. (2013) *Growing up in Scotland: Birth cohort 2. Results from the first year*. Edinburgh: Scottish Government. Available at: <http://www.scotland.gov.uk/Publications/2013/02/3280/downloads>

Brewer, M., Cattan, S. and Crawford, C. in IFS (2014) *Green Budget*. Available at: http://www.ifs.org.uk/budgets/gb2014/gb2014_ch8.pdf

Bryson, C., Brewer, M., Sibieta, L and Butt, S. (2012) *The role of informal childcare: a synthesis and critical review of the evidence*. London: Nuffield Foundation Available at: <http://www.ifs.org.uk/publications/6072>

Care Commission (online) *National Care Standards: Early education and childcare up to the age of 16*. Available at: <http://www.nationalcarestandards.org/213.html>

Care Inspectorate. (2013) *Childcare Statistics 2012*. Dundee: Care Inspectorate. Available at: http://www.scswis.com/index.php?option=com_docman&task=doc_download&gid=1021&Itemid=718

Childcare Vouchers (online) *Overview of the changes*. <http://www.childcarevouchers.co.uk/Employers/HowItWorks/Pages/OverviewoftheApril2011TaxChanges.aspx> [accessed 21 March 2014]

CIPFA (2013) *Rating Review Estimates 2012-13*. London: CIPFA

Department for Business Innovation and Skills. (2012) *Modern Workplaces: Consultation*. London: BIS. Available at: <https://www.gov.uk/government/consultations/consultation-on-modern-workplaces>

Department for Business Innovation and Skills. (2013) *Modern Workplaces: Consultation on the administration of shared parental leave and pay: Government response*. London: BIS. Available at: <https://www.gov.uk/government/consultations/consultation-on-the-administration-of-shared-parental-leave-and-pay>

Department for Education (2012) *Foundation Years benchmarking – 2012-13 funding spreadsheet*. Available at: <http://media.education.gov.uk/assets/files/xlsm/f/funding%20benchmarking%203-4yo.xlsm> [Accessed 11.03.14]

Department for Education (2013) *Funding early learning for 2-year-olds: Funding formula technical note*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/266573/Technical_note_-_funding_early_learning_for_2_year-olds_-_17_12_13.pdf [Accessed 11.03.14]

Department for Work and Pensions. (2013) *Universal Credit and Your Family*. London: DWP. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/254329/uc-and-your-family-quick-guide.pdf

Department for Work and Pensions. (2014) *7 ways Universal Credit will be a better deal*. News Release 20 March 2014. London: DWP. Available at: <https://www.gov.uk/government/news/7-ways-universal-credit-will-be-a-better-deal>

Education Scotland. (2012) *Making the difference*. Livingston: Education Scotland. Available at: http://www.educationscotland.gov.uk/Images/Making%20the%20Difference_tcm4-735922.pdf

European Labour Force Survey. (2010) *Ad-hoc module on reconciliation between work and family life*. Brussels: Eurostat. Available at: http://epp.eurostat.ec.europa.eu/portal/page/portal/employment_unemployment_lfs/data/database

Eurostat (online 2014) http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Gender_pay_gap_statistics

Family and Childcare Trust and Children in Scotland (2013) *The 2013 Scottish Childcare Report* London: Family and Childcare Trust. Available at: http://www.familyandparenting.org/Resources/FPI/Documents/FCT_Scottish_Childcare_Costs_13.pdf

Family and Childcare Trust (2014a) *Childcare costs survey 2014*. London: Family and Childcare Trust: Available at: <http://www.familyandchildcaretrust.org/childcare-costs-surveys>

Family and Childcare Trust (2014b) *The 2014 Scottish Childcare Report*. London: Family and Childcare Trust. Available at: <http://www.familyandchildcaretrust.org/News/scottish-parents-face-toxic-mix-of-rising-childcare-costs-and-lack-of-childcare-places>

General Register Office of Scotland (2013) *Mid-2012 population estimates and projections*. Available at: <http://www.gro-scotland.gov.uk/statistics/theme/population/estimates/mid-year/2012/list-of-tables.html> [Accessed 11.03.14]

Hardoy, I. and Schone, P. (2013) *Enticing even higher female labour supply – the impact of cheaper daycare*. Oslo: Institute of social research. Available at: <http://www.socialresearch.no/Publications/Papers/2013/2013-003>

Havnes, T. and Mogstad, M. (2009) *Money for Nothing? Universal childcare and maternal employment*. IZA discussion paper no. 4504. Bonn: IZA. Available at: <http://ftp.iza.org/dp4504.pdf>

The Herald. (2014) *200,000 Scots families to benefit from upgraded childcare plan*. 18 March 2014. Available at: <http://www.heraldscotland.com/politics/wider-political-news/200000-scots-families-to-benefit-from-upgraded-childcare-plan.23722897> [Accessed 21 March 2014]

HM Government. (2014) *Millions of parents to get help with childcare costs*. News release 18 March 2014. Available at: <https://www.gov.uk/government/news/millions-of-parents-to-get-help-with-childcare-costs> [Accessed 21 March 2014]

HMRC (2013a) *Estimated costs of the principal tax expenditure and structural reliefs*. London: HMRC. Available at <http://www.hmrc.gov.uk/statistics/expenditures/table1-5.pdf>

HMRC (2013b) *Child and Working Tax Credit Statistics: finalised annual awards 2011-12*. London: HMRC. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/260067/cwtc-awards.pdf

HMRC (2013c) *Child and Working Tax Credits Finalised awards 2011-12. Geographical Analysis*. London: HMRC https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/282418/geo-analyses_1_.pdf

HMRC. (2013d). *Paying for childcare: getting help from your employer. IR115*. London: HMRC. Available at: <http://www.hmrc.gov.uk/leaflets/ir115.pdf>

HMRC (2013e) *Individuals – Personal Taxes, Tax Credits, Child Benefits*. London: HMRC. Available at: <http://www.hmrc.gov.uk/budget2013/individuals.htm> [Accessed 21 March 2014]

HM Treasury (2011) *The Green Book*. London: HMT. Available at: <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government> [Accessed 2 April 2014]

HM Treasury (2014a) *Budget 2014*. London: HMT. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/293759/37630_Budget_2014_Web_Accessible.pdf

HM Treasury (2014b) *Latest GDP deflators*. Available at: <https://www.gov.uk/government/publications/gdp-deflators-at-market-prices-and-money-gdp-march-2013> [Accessed 11.03.14]

Huskinson, T., Kostadintcheva, K., Greevy, H., Salmon, C., Dobie, S., Medien, K., Gilby, N., Littlewood, M. and D'Souza, J. (2014) *Childcare and early years survey of parents 2012-2013*. London: Department for Education. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/275992/SFR06-2014_Childcare_and_Early_Years_Survey_of_Parents_2012-13_final.pdf

Kidner, C. (2011) *Early Years: Subject Profile*. Edinburgh: Scottish Parliament. Available at: http://www.scottish.parliament.uk/ResearchBriefingsAndFactsheets/S4/SB_11-51.pdf

La Valle, I., Clery, E. and Huert, M. (2008) *Maternity rights and mothers' employment decisions. DWP Research report no. 496*. London: DWP. Available at: http://www.equality-ne.co.uk/downloads/248_rrep496.pdf

Lefebvre, P. Merrigan, P; Roy-Desrosiers, F (2011) *Quebec's childcare universal low fees policy 10 years after: effects, costs and benefits*. working paper 11-01. Centre Interuniversitaire sur le risqué les politiques économiques et l'emploi. Available at: <http://ideas.repec.org/p/lvl/lacicr/1101.html>

National Day Nurseries Association Scotland. (2014) *Insight report: the nursery sector in Scotland February 2014*. Edinburgh: NDNA. Available at: <http://www.ndna.org.uk/Resources/NDNA/Public%20Factsheets/Nursery%20Survey%20report%20-%20Scotland%202014.pdf>

National Records of Scotland. (2014) *2011 Census: Key results on households and families and method of travel to work or study in Scotland – Release 2C*. Edinburgh: NRS. Available at: <http://www.scotlandscensus.gov.uk/documents/censusresults/release2c/StatsBulletin2c.pdf>

Nollenberger, N. and Rodriguez-Planas, N. (2011) *Childcare, Maternal Employment and Persistence: A natural experiment from Spain*. IZA discussion paper no. 5888. Bonn: IZA. Available at: http://www.iza.org/en/webcontent/publications/papers/viewAbstract?dp_id=5888

OECD. (2014) *OECD Families Database*. Paris: OECD. Available at: <http://www.oecd.org/social/soc/oecdfamilydatabase.htm>

Office for National Statistics. (2013a) *Women in the Labour Market*. London: ONS. Available at: http://www.ons.gov.uk/ons/dcp171776_328352.pdf

Office for National Statistics (2013b) *Annual Survey of Hours and Earnings, 2013 Provisional results*. London: ONS. Available at: <http://www.ons.gov.uk/ons/rel/ashe/annual-survey-of-hours-and-earnings/2013-provisional-results/index.html>

Office for National Statistics. (2014) *Mean and median hourly earnings for people in Scotland by their highest qualification*. London: ONS. Available at: <http://www.ons.gov.uk/ons/about-ons/business-transparency/freedom-of-information/what-can-i-request/published-ad-hoc-data/labour/march-2014/index.html> [Accessed 20 March 2014]

Scottish Credit and Qualifications Framework (online) Available at: <http://www.scqf.org.uk/content/images/misc/Framework%20Diagram%20blue%20-%20Updated%20Aug%202013.jpg> [Accessed 20 March 2014]

Scottish Executive. (2006) *National Review of the Early Years and Childcare Workforce: Scottish Executive Response: Investing in Children's Futures*. Edinburgh: Scottish Executive. Available at: <http://www.scotland.gov.uk/Publications/2006/08/09121758/0>

Scottish Government. (online a) *High level summary of statistics trend. Earnings* Available at: <http://www.scotland.gov.uk/Topics/Statistics/Browse/Labour-Market/TrendEarnings> [Accessed 21 March 2014]

Scottish Government. (online b) *High level summary of statistics trend. Pre-school education*. Available at: <http://www.scotland.gov.uk/Topics/Statistics/Browse/Children/TrendNursery> [Accessed 20 March 2014]

Scottish Government (2011) *The Impact of a Reduction in Corporation Tax on The Scottish Economy*. Available at: <http://www.scotland.gov.uk/Resource/0038/00388940.pdf> [Accessed 2 April 2014]

Scottish Government. (2013a) *Pre-school educations statistics September 2013 – Additional Tables*. Edinburgh: Scottish Government. Available at: <http://www.scotland.gov.uk/Topics/Statistics/Browse/Children/Pubs-Pre-SchoolEducation/PreSchoolAdditionalTablesSept2013>

Scottish Government (2013b) *Scotland's Future: Your Guide to an Independent Scotland*. Available at: <http://82.113.138.107/00439021.pdf> [Accessed 06.03.14]

Scottish Government (2013c) *Childcare and female labour market participation*. November 2013. Available at: <http://www.scotland.gov.uk/Resource/0043/00439259.pdf> [Accessed 27.02.14]

Scottish Government (2013d) *Summary Statistics for Schools in Scotland, No.4 : 2013 Edition*. Available at: <http://www.scotland.gov.uk/Publications/2013/12/4199/downloads> [Accessed 18.03.14]

Scottish Government. (2014a) *Supporting Scotland's Families*. News Release 7 January 2014. Available at: <http://news.scotland.gov.uk/News/Supporting-Scotland-s-families-81d.aspx> [Accessed 21 March 2014]

Scottish Government. (2014b) *Transforming Childcare*. News release 18 February 2014. Available at: <http://news.scotland.gov.uk/News/Transforming-childcare-95d.aspx>

Scottish Government. (2014c) *Labour Market Brief – Monthly Briefing Slide Pack: February 2014*. Edinburgh: Scottish Government. Available at: <http://www.scotland.gov.uk/Topics/Statistics/Browse/Labour-Market/AnalyticalPapers/LM-Brief-Feb>

Scottish Government (2014d) *Childcare and labour market participation – economic analysis*. Available at: <http://www.scotland.gov.uk/Resource/0044/00441783.pdf> [Accessed 2 April 2014]

Scottish Liberal Democrats. (online) *Conference backs childcare plans*. Available at: <http://www.scotlibdems.org.uk/news/2014/03/conference-backs-childcare-plans> [Accessed 1 April 2014]

Scottish Negotiating Committee for Teachers. (online) *The SNCT Handbook of Conditions of Service*. Available at: http://www.snct.org.uk/wiki/index.php?title=Appendix_2.1 [Accessed 20 March 2014]

Scottish Out of School Care Network. (2013) *Workforce survey 2013* Glasgow: SOCN. Available at: https://soscnc.org/downloads/research/OSC_Workforce_Survey_2013.pdf

Scottish Parliament (2013a) *Children and Young People (Scotland) Bill. Explanatory Notes and other accompanying documents*. Edinburgh: Scottish Parliament. Available at: [http://www.scottish.parliament.uk/S4_Bills/Children%20and%20Young%20People%20\(Scotland\)%20Bill/b27s4-introd-en.pdf](http://www.scottish.parliament.uk/S4_Bills/Children%20and%20Young%20People%20(Scotland)%20Bill/b27s4-introd-en.pdf) [Accessed 27.02.14]

Scottish Parliament. (2014a) *Daily Written Answers 5th February 2014*. S4W-19337. Edinburgh: Scottish Parliament. Available at: http://www.scottish.parliament.uk/S4_ChamberDesk/WA20140205.pdf

Scottish Parliament. (2014b) *Daily Written Answers. 5th February 2014*. S4W -19304 Edinburgh: Scottish Parliament. Available at: http://www.scottish.parliament.uk/S4_ChamberDesk/WA20140205.pdf

Scottish Parliament (2014c) *Children and Young People (Scotland) Bill. Supplementary Financial Memorandum*. Edinburgh: Scottish Parliament. Available at: [http://www.scottish.parliament.uk/S4_Bills/Children%20and%20Young%20People%20\(Scotland\)%20Bill/b27as4-stage2-fm.pdf](http://www.scottish.parliament.uk/S4_Bills/Children%20and%20Young%20People%20(Scotland)%20Bill/b27as4-stage2-fm.pdf) [Accessed 27.02.14]

Scottish Parliament Finance Committee (2013) *Official Report 18 September 2013 c2963*. Edinburgh: Scottish Parliament. Available at: <http://www.scottish.parliament.uk/parliamentarybusiness/28862.aspx?r=8505&mode=pdf> [Accessed 11.03.14]

Scottish Social Services Council. (online) *Qualification criteria – day care of children services workers*. Available at: <http://www.sssc.uk.com/All-about-Registration/qualification-criteria-day-care-of-children-service-workers.html> [Accessed 21 March 2014]

Seely, A. (2014) *Tax relief for childcare*. House of Commons Library standard note. London: House of Commons. Available at: <http://www.parliament.uk/business/publications/research/briefing-papers/SN00019/tax-relief-for-childcare>

Stewart, K. (2011) *Employment trajectories and later employment outcomes for mothers in the British Household Panel Survey: An analysis by skill level*. Centre for Analysis of Social Exclusion, London School of Economics. Available at: sticerd.lse.ac.uk/dps/case/cp/CASEpaper144.pdf

Thompson, S and Ben-Galim, D. (2014) *Childmind the Gap: Reforming childcare to support mothers into work*. IPPR. Available at: http://www.ippr.org/images/media/files/publication/2014/02/childmind-the-gap_Feb2014_11899.pdf

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RELATED BRIEFINGS

SB 14-13 [Children and Young People \(Scotland\) Bill as amended at stage 2](#) (February 2014)

SB 13-53 [Understanding Corporation Tax Modelling](#) (September 2013)

SB 13-38 [Children and Young People \(Scotland\) Bill 2014](#) (June 2013)

SB 11-51 [Early Years – subject profile briefing](#) (June 2011)

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