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Growth through Knowledge

Counting the cost

An analysis of delivery costs for funded early years education and childcare

October 2014

Foreword

Ceeda would like to thank the Pre-school Learning Alliance for commissioning this timely piece of research into the cost of delivering quality early years education and childcare provision.

The study comes at a time when early years education is high on the political agenda. From the early beginnings of Nursery Education Voucher schemes in 1997, to a universal entitlement for 3 and 4 year olds and funded provision for 40% of two year olds, government intervention in the early years market has grown substantially over the last three decades[1].

Recent election pledges have promised to extend support further. The Coalition announced plans to replace childcare vouchers from Autumn 2015 with a scheme that would see the government pay 20p for every 80p a parent spends on childcare, up to £2,000 a year per child[2]. The Liberal Democrats plan to offer 15 hours of free childcare to all two year olds[3] whilst Labour has pledged to extend the universal entitlement for three and four years olds from 15 to 25 hours per week for working families[4].

It is well evidenced that good quality early years education can help close the development gaps created by inequality and deprivation in the early years, improving the life chances of individual children and creating wider social and economic benefits.[5] Few would challenge the goals of increasing the quality, accessibility and affordability of early years provision.

There is less agreement, however, on *how much it costs* to deliver high quality early education and childcare and the level of public investment required to achieve these goals. As government intervention in the market grows it becomes increasingly critical to ensure that investment is at the right level.

This research set out to provide an independent measure of the average cost of delivering one hour of quality early years education and childcare for funded two, three and four year old children and to compare this with current funding levels to evaluate any gaps.

We would particularly like to thank all the early years settings participating in the study who gave so generously of their time in what has been an extensive data collection process.

We hope this report will contribute to future debates on the funding of early years education and childcare.

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www.ceeda.co.uk

[1] Paull G. (2014) Can Government Intervention in Childcare be Justified? *Economic Affairs* Volume 34 Number 1. 14-34
[2] http://sharethefacts.conservatives.com/post/79969649359/helping-families-with-the-cost-of-childcare
[3] http://www.libdems.org.uk/free_childcare_for_all_2_year_olds
[4] http://www.labour.org.uk/issues/detail/childcare
[5] Mathers at al. (2014) *Sound Foundations.* The Sutton Trust

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Executive Summary

This report outlines the findings of research into the cost of delivering funded childcare places in private voluntary and independent (PVI) childcare settings operating from non-domestic premises in England.

Commissioned by the Pre-school Learning Alliance and delivered by Ceeda, an independent research agency the study set out to:

- Track the service inputs of good and outstanding early years provision in England across children in a representative mix of settings
- Translate these inputs into a unit cost per hour per child for funded 2, 3 and 4 year olds
- Compare this evidence based data with current funding levels
- Analyse any gaps.

The study tracked costs for the delivery of **186,712 hours** of early years education and childcare for **5,635** funded and non-funded children in 100 early years settings over the two week period June 23rd to 4th July 2014.

Key findings are as follows:

- On average, one hour of quality early education and childcare for funded three and four year old children in England costs £4.53. Comparison with LEA budgets delegated to PVI providers in 2013/14 shows an average funding shortfall of -£0.65 per hour (17%). Funding gaps widen to 20% in the London region.

- If the unpaid contribution of staff is factored into costs the average gap between hourly funding rates and delivery costs in England widens to -£0.80 for funded 3 and four year olds (21%).

- Over the period of a year and *excluding* unpaid staff effort it is estimated that the non-domestic PVI sector faces a total funding deficit of £177 million for the provision of the universal entitlement for three and four year olds. The introduction of the Early Years Pupil Premium in 2015 will reduce this deficit by an estimated £19.5 million.

- On average, one hour of quality early education and childcare for funded two year olds in England costs £5.97; the study found an average funding shortfall of -£0.78 per hour (15%) when compared with LEA budgets delegated to PVI providers in 2013/14. Funding gaps widen to 17% in the London region.

- If the unpaid contribution of staff is taken into account the gap between hourly funding rates and delivery costs in England widens to -£0.91 per hour (18%) for funded two year olds.

- The funding deficit for delivery of funded two year old places in the non-domestic PVI sector totals an estimated £29.6 million per annum, *excluding* the unpaid contribution of staff. This deficit is set to increase with the expansion of two year old places from 20% to 40% of the population.

- Taken together these figures suggest that the non-domestic PVI sector faces a total funding deficit of £206.6 million per annum, without factoring for the expansion of 2 year old places.

- This analysis is based on an 'at cost' assessment which makes no allowance for the generation of surplus or return on private sector investment. 'Fair price' models adopted in the care home sector[6] factor for a 12% return on capital to support long term sustainability and private sector investment.

This research suggests that if settings do not or cannot absorb funding deficits, the consequence of continued under-funding is likely to be increased childcare costs for families and/or a retraction in the supply of funded places; both being scenarios which undermine policy objectives to increase the affordability, quality and accessibility of early years education.

[6] Laing and Buisson (2008) Calculating the costs of efficient care homes, Joseph Rowntree Foundation.

1. Introduction

It is well evidenced that good quality early years education can help close the development gaps created by inequality and deprivation in the early years, improving the life chances of individual children and creating wider social and economic benefits.[7]

Less clear, is how public monies can best be invested to support high quality, affordable and accessible childcare services. Key to this debate is a clear understanding of **how much it costs to deliver high quality provision.**

Large scale studies of childcare provider costs[8] have provided a general overview of expenditure but lack the detailed operational information required to reliably translate this into unit costs per hour per child; the main basis upon which free nursery education is funded.

This study, commissioned by the Pre-school Learning Alliance and delivered by Ceeda, an independent research agency, addresses the gap by tracking the cost of service delivery in non-domestic private, voluntary and independent (PVI) childcare providers in England.

The research set out to:

- Track the service inputs of good and outstanding early years provision in England across children in a representative mix of settings
- Translate these inputs into a unit cost per hour per child for funded 2, 3 and 4 year olds
- Compare this evidence based data with current funding levels
- Analyse any gaps.

The study tracked the resources expended in delivering **186,712 hours** of early years education and childcare for **5,635** funded and non-funded children over a two week period from June 23rd to 4th July 2014.

Research findings for *funded children* are presented in this report.

2. Research scope and methodology

The research question is a complex one with many variables at play. With this in mind it was important to have a very clear scope and well-defined study population to which results could be reliably extrapolated. For these reasons the first phase of this research has been confined to early years childcare providers meeting the following criteria:

Private voluntary and independent childcare providers (PVI providers) operating from non-domestic premises, registered on the Ofsted Early Years Register in England and with a published Ofsted inspection outcome of Good or Outstanding as recorded in Ofsted's statistical release September 2012 to October 2013.[9]

Ofsted inspection grade was adopted as the measure of quality on the basis that it is the only quality indicator now used as an eligibility criteria for funding purposes.

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[7] Mathers at al. (2014) *Sound Foundations.* The Sutton Trust
[8] Department for Education (2014) Childcare and Early Years Provider Survey. TNS BMRB Report JN 117328
[9] Ofsted (2013) Early Years and Childcare Registered Providers Inspection and Outcomes September 2012 to October 2013.

2.1 Who took part in the research?

A *random stratified sample* of childcare providers was recruited to participate in the study, enabling results to be confidently extrapolated to the wider sector with defined margins of error. The sampling process is outlined in the annex to this report.

A total of 103 PVI settings completed the research process and of these, 100 returned study documentation meeting the quality criteria for inclusion in analysis. The margins of sample error for key statistics are shown in the report annex.

The profile of settings taking part in the study is shown in table one. There is a good mix of private and voluntary sector settings of varying sizes located across all nine England regions and within areas of low, medium and high deprivation. This provides a strong base for exploring delivery costs.

Table 1: Profile of participating early years settings

Profile of participating early years settings			
Ownership	**N**	**Organisation Type**	**N**
VCS	41	Pre-school/playgroup	32
Private	59	Day nursery	68
England region		**IDACI measure of deprivation**[10]	
North East	11	1 (High)	11
Yorkshire and Humber	6	2	19
North West	5	3	23
East of England	11	4	27
East Midlands	19	5 (low)	20
West Midlands	17		
South East	9	**Number of settings organisation operates**	
London	7	1 setting	75
South West	15	2 to 5 settings	14
		6 plus settings	11
Ofsted inspection outcome			
Outstanding	29		
Good	69		
Requires improvement	2[11]		

[10] Income Deprivation Affecting Children Index, classified by setting postcode.

[11] At the time of sampling these settings had a 'Good' inspection outcome.

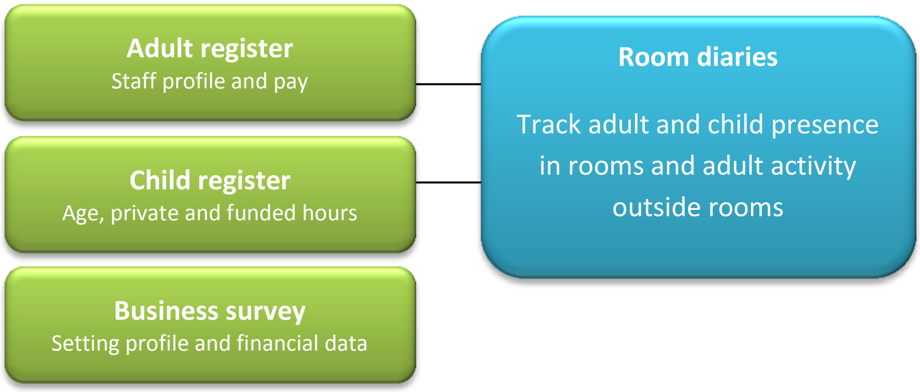
2.2 How have costs been measured?

The study collected cost data in a **systematic** way across all study sites. This was achieved by designing tools to collect consistent BASE data which could then be modelled to evaluate costs on a common basis.

An example is the treatment of labour costs. Settings reported hourly pay rates *as paid to employees*, with 'on-costs' then being applied post-data collection using systematic and documented methodologies (see report annex).

Profile data collected in anonymised staff and child registers was linked with detailed records of activity in daily room diaries, completed over a two week study period. This approach provides a comprehensive picture of the costs of delivering **186,712 hours** of quality early years education on behalf of **5,635 children**.

Figure 1: Overview of study methodology



Room diaries tracked the time staff spent in ratio within sessions and time spent on activities outside of sessions where these were directly related to the care and development of individual children.

Staff recorded whether time spent outside sessions was carried out in their paid working hours, or unpaid in their own time. The report provides an analysis of costs inclusive and exclusive of this voluntary contribution.

The analysis draws out four main cost centres:

1. Labour in ratio – time spent caring for children when staff are counted in ratios.
2. Non-ratio labour – time spent outside sessions on activities directly related to the care and development of individual children.
3. Supernumerary labour – time spent on administrative and business management roles.
4. Non-labour overheads – financial expenditure *excluding* payroll costs.

It is the nature of early years settings that staff classified as 'supernumerary' may also spend time in and out of ratio carrying out activities on behalf of individual children. The cost categories therefore relate to *activities* and not discreet groupings of staff.

Cost tracking was also complimented by case studies across six nursery sites to provider deeper insight into day to day service delivery.

3. What does one hour of quality early education and childcare cost?

On average, one hour of quality early education and childcare for funded 3 and 4 year children in England costs £4.53, rising to £5.97 per hour for funded 2 year olds.

Comparisons with 2013/14 budgets delegated to PVI providers[12] by each LEA in the study show average funding shortfalls of -£0.78 per hr (15%) for funded two year olds in England and -£0.65 per hr (17%) for funded three and four year olds. Funding gaps widen in the London region to 17% and 20% respectively[13].

As of December 2013 there were 72,640 two year old children accessing funded early education in PVI non-domestic settings.[14] Based on patterns of attendance identified in this study this equates to a total funding shortfall of £29.6 million per annum. With the expansion of the free entitlement to 40% of two year old children from September 2014 this deficit is set to increase.

The number of three and four year old children taking up funded early education in PVI non-domestic settings as of December 2013 was 509,680. Again based on patterns of attendance found in the study this equates to a total funding shortfall of £177 million per annum.

The non-domestic PVI sector in England is therefore facing a total estimated funding deficit of £206.6 million per annum. This figure does not factor in the expansion of the two year old offer from September 2014.

Table 2: Comparison of delivery costs and funding rates by age and location excluding the unpaid contribution of staff

Funded Children in England	£Average cost per hour	£Average funding per hour	£Average funding gap per hour	£Average funding gap per child per annum	Funding gap as a percentage of average hourly funding rates
England					
2 year olds	£5.97	£5.19	-£0.78	-£407.81	15%
3 and 4 year olds	£4.53	£3.88	-£0.65	-£347.33	17%
London region					
2 year olds	£6.67	£5.71	-£0.96	-£510.36	17%
3 and 4 year olds	£5.48	£4.56	-£0.92	-£486.86	20%

Funding data: Delegated budget allocated to PVI providers per pupil per hour 2013/2014 published by Department for Education
Cost data: England funded 2 year olds: 383 children in 73 non-domestic childcare settings
England funded 3 and 4 year olds: 3,488 children in 100 non-domestic childcare settings
London funded 2 year olds: 28 children in 5 settings
London funded 3 to 4 year olds: 267 children in 7 settings.

The forthcoming introduction of the Early Years Pupil Premium (EYPP) from April 2015[15] will release a further £50 million for the support of disadvantaged three and four year old children in early years settings, up to a maximum of £300 per child. The move has been widely welcomed in the early years sector, in particular the ability to use the additional funding flexibly to meet the specific needs of each child.

[12] Department for Education Early Years Benchmarking Tool: Delegated budget allocated to providers per hour 2013/14.
[13] It is noted that the sample size for the London region is small and analysis should be approached with caution.
[14] Department for Education Statistical First Release. Provision for children under five years of age in England: January 2014.
[15] Pilots to commence from January 2015.

Assuming the distribution of EYPP funds reflects current take up of the universal entitlement, approximately 39% of these additional monies will be available to the PVI sector, a total of £19.5 million in the wider context of a £177 million funding deficit.[16]

Ofsted will be charged with evaluating the extent to which additional funds are used effectively, under an amended leadership and management judgement.

3.1 What do these cost estimates exclude?

Effective organisations create a surplus from the sales of their products and services to reinvest in future delivery and, in private sector organisations, to deliver a financial return for investors.

No allowance has been made for return on investment in the analysis of costs presented.

'Fair price' calculations used to support Local Authorities decisions on fee levels for care home provision include a target annual return on capital of 12%.[17] It is proposed a similar level of return should be incorporated when determining appropriate funding levels for a sustainable PVI early years sector.

This study has also shown that service delivery is subsidised by the goodwill and commitment of the early years workforce in the form of unpaid overtime outside contracted working hours.

Table three shows delivery costs when the *unpaid contribution* of staff[18], tracked in daily diaries, is taken into account. The gap between funding and delivery costs widens from 15% to 18% for funded two year olds and from 17% to 21% for funded three and four year olds across England.

Table 3: Comparison of delivery costs and funding rates when the unpaid contribution of staff is charged

Funded children in England	£Average cost per hour	£Average funding per hour	£Average funding gap per hour	£Average funding gap per child per annum	Funding gap as a percentage of average hourly funding rates
2 year olds	£6.10	£5.19	-£0.91	-£469.71	18%
3 and 4 year olds	£4.69	£3.88	-£0.80	-£425.34	21%

Funding data: Delegated budget allocated to providers per hour 2013/2014 published by Department for Education
Cost data: Funded 2 year olds: 383 children in 73 non-domestic childcare settings
Funded 3 and 4 year olds: 3,488 children in 100 non-domestic childcare settings

[16] As of December 2013 509,680 three and four year old children accessed their universal entitlement in a non-domestic PVI setting out of a total of 1,299,910 children accessing free early education (39%). Department for Education Statistical First Release. Provision for children under five years of age in England: January 2014.

[17] Laing and Buisson (2008) Calculating the costs of efficient care homes, Joseph Rowntree Foundation.

[18] This includes extra time staff spend at the workplace or at home, outside their contracted hours and on an unpaid basis.

4. What goes into one hour of quality early years education and childcare?

It is important to evaluate how costs are made up and the factors which are therefore likely to influence them.

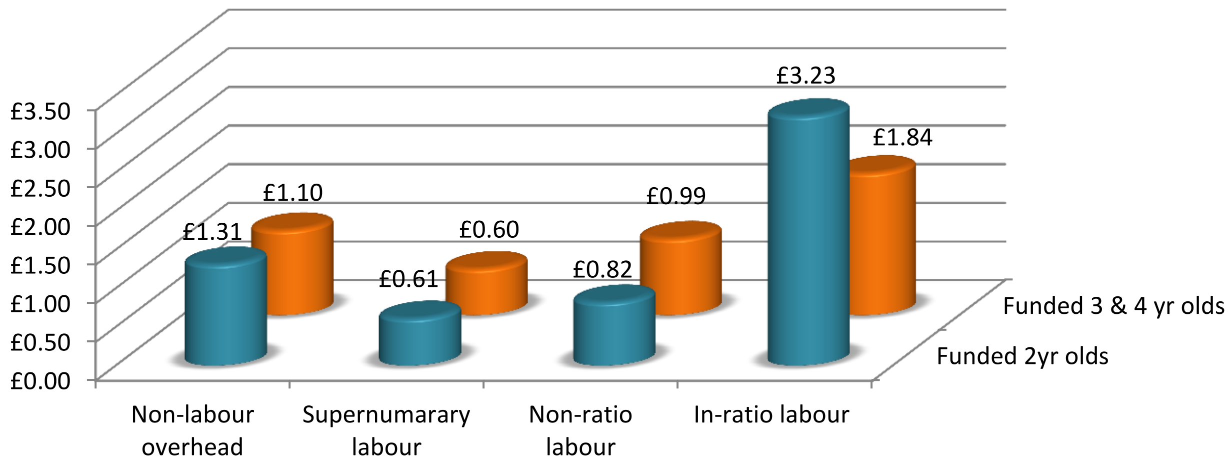
Looking at the breakdown of average costs per hour in figure two below it is clear that labour accounts for a substantial proportion of spend: £3.43 (76%) for three and four year olds on average, rising to £4.66 (78%) of costs for two year olds. Figures *exclude* unpaid labour contributed by staff outside their working hours.

The study tracked time spent on the direct care of children in sessions ('In-ratio labour') and extra time spent on activities related to the care and development of individual children outside of sessions ('Non-ratio labour'). The analysis clearly shows that funding formulae need to take account of direct labour costs occurring *outside* a child's contact time 'in ratio.' Activities outside sessions are explored in more detail at section 4.1.

Management, administration and other supporting roles are identified as 'supernumerary' labour below and vary little by age group.

Finally there are significant non-labour costs including premises, food, utilities, insurance, learning resources etc. These are classified as 'non-labour overheads' in figure two.

Figure 2: Composition of hourly delivery costs for funded 2, 3 and 4 year olds.



383 funded 2 year old children in 73 non-domestic childcare settings
3,488 funded 3 and 4 year old children in 100 non-domestic childcare settings

4.1 Time beyond ratios

The study has for the first time provided a very detailed picture of supporting activity that takes place on behalf of individual children **outside** contact time in sessions. Time was tracked using three activity codes: paperwork, liaising with parents and liaising with external agencies. The latter may include schools, social services and health care organisations etc. The analysis shown in table four includes paid and unpaid time spent outside sessions on each activity. The total time spent on these activities is higher since staff also carry out these tasks whilst caring for children in ratios.

Table 4: Time spent supporting children and families *outside* sessions

Average time spent per child	Average time spent supporting the child and family outside session times, per hour the child spends in session		Estimated average time spent on supporting the child and family outside sessions across 38 weeks of funded provision	
Funded children aged:	**2 years**	**3 and 4 years**	**2 years**	**3 and 4 years**
Paperwork	1.6 mins	1.9 mins	13.5 hours	16.3 hours
Liaising with parents	2.6 mins	2.3 mins	22.9 hours	20.3 hours
Liaising with external agencies	3.4 mins	2.1 mins	26.5 hours	18.1 hours

383 funded 2 year old children in 73 non-domestic childcare settings
3,488 funded 3 and 4 year old children in 100 non-domestic childcare settings

Case study visits involving management interviews and observation of service delivery in six early years settings give further insight into how this time is spent and the benefits it brings for vulnerable children. A glimpse at this picture is provided below.

Case Study 1
Child A started nursery in September 2013 having accessed two year old funding. After the settling in period, it was noticed that Child A's speech and language was slightly delayed. Mum shared with the nursery that she was in emergency housing due to personal issues. Child A is bilingual, mum spoke 3 different languages and suffered from depression.

After Child A had been at the nursery for 2 months, the key person and the nursery manager met with mum and explained the concerns they had around Child A's language development. Mum agreed for the nursery to complete a speech and language referral which was completed by the SENCO and sent to the speech and language department.

Child A started to access speech and language therapy. The nursery noticed a significant development in the number of words that the child was able to use within a sentence. Over the period of 3 terms the child has progressed from using single words to using 3-4 word sentences.

Case Study 2
Child B lives with his 20 year old mum and a younger sibling, the father no longer lives with the family after a violent relationship breakdown. Mum has been receiving support from a family support worker which has now ended. Child B first started at nursery after accessing two year old funding.

Circumstances have continued to be difficult at home and a health visitor recently raised concerns about the condition of the home and lack of food in the house.

As an active partner at a local food bank the nursery manager was able to support mum in obtaining food for the family. It was evident mum still needed support and she now comes to see the nursery manager when she needs someone to talk to for advice.

Child B has speech delay and has been referred by the nursery for talking toddler sessions; his sessions at nursery have been re-arranged to enable him to attend.

5. Factors impacting on delivery costs

This report has provided a picture of average delivery costs across England, based on a random sample of 100 PVI childcare providers on non-domestic premises.

It is important to note that local market conditions will influence the mix and level of these costs, in particular the cost of labour, property and occupancy levels linked to local childcare demand.

5.1 Occupancy levels and patterns of use

Delivery costs per child are linked to occupancy rates. Whilst there is flexibility to adjust workforce levels via the use of bank and agency staff, many overhead costs remain fixed regardless of the number of children accessing provision.

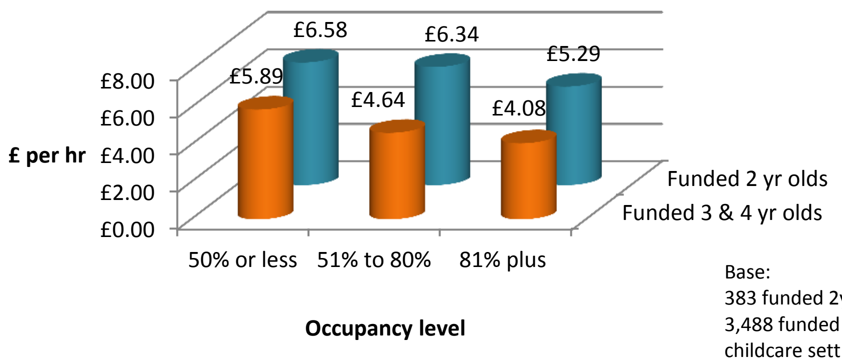
Room diaries used in the study provided detailed information on occupancy throughout the day and across a two week period. Occupancy has been calculated at hourly intervals, based on the number of children in a room at any one time and the maximum number of places the room can offer, proportionate to overall registration limits. This measure is very sensitive to *fluctuations* in occupancy resulting from the increasingly flexible mix of session times that are now offered by many settings.

This detailed measure of occupancy shows levels *averaged* 72% across study sites, with occupancy highest in the mornings at 76%, dipping to 70% on average at noon and at 2:00pm. It is noted that the study took place in the second half of the summer term when occupancy levels are typically at their highest.

Cross-sectional measures of occupancy captured at a single point in time and based on vacancies as a percentage of total nursery capacity, are less sensitive to the 'jigsaw puzzle' of flexible sessional delivery which settings now accommodate. Estimates based on cross-sectional measures in June 2013 indicated a sector occupancy average of 80% and cyclical low of 77.5% in January 2007.[19]

As occupancy increases, costs reduce as clearly shown in figure three below. When occupancy falls below 50% the average cost per hour for the care of a funded two year old child is £6.58, reducing to £5.29 when occupancy is above 80%. The figures for 3 and 4 year olds are £5.89 and £4.08 respectively.

Figure 3: Delivery costs per hour and occupancy level for funded 2, 3 and 4 year olds



Base:
383 funded 2yr old children in 73 non-domestic childcare settings.
3,488 funded 3 and 4 year old children in 100 non-domestic childcare settings.

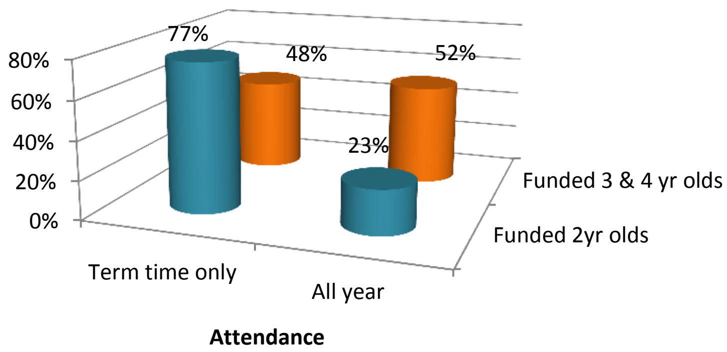
[19] Laing & Buisson (2013) Children's Nurseries UK Market Report 2013

Occupancy is closely linked to patterns in the use of funded places. Settings operating all year round will typically experience significant dips in occupancy during school holiday periods.

Three quarters of funded two year olds (75%) and 48% of funded 3 and 4 year olds in the study accessed care in a non-domestic PVI setting operating all year round.

Of the three and four year olds attending a year round setting, 48% attended term time only compared with more than three quarters of funded two year olds (77%).

Figure 4: Patterns of attendance in settings operating all year round

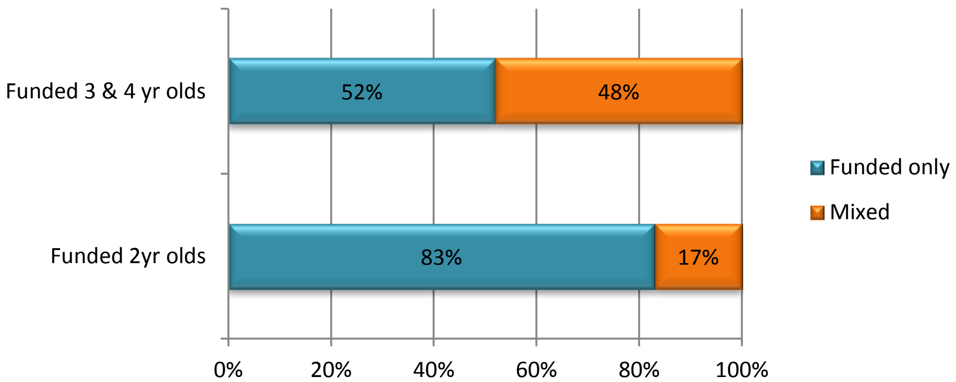


Base: 289 funded 2 year old children accessing care in year-round PVI settings
1,663 funded 3 and 4 year old children accessing care in year-round PVI settings

5.2 The funding mix

Given that funding for 2 year olds is targeted at the 20% most deprived children in our communities (as at June 2014) it follows that these children are significantly less likely to access privately paid sessions in addition to their funded hours across all types of setting. Almost half of children accessing funded 3 and 4 year old places pay for additional hours (48%) falling to 17% of funded two year old children.

Figure 5: Mix of funded and private care for 2, 3 and 4 year olds in all types of setting



Base: 383 funded 2 year old children in 73 non-domestic childcare settings
3,488 funded 3 and 4 year old children in 100 non-domestic childcare settings

This analysis highlights several key factors in delivery costs and the sustainability of the PVI sector as funded provision expands:

- Settings have constraints on capacity based on their physical environment and the statutory framework within which they work
- As settings increase the number of funded children on roll, the proportion of the client base paying for and utilising care throughout the year is likely to fall
- If payment for a funded place fails to meet delivery cost, the 'loss' has to be off-set elsewhere in the business - as funded provision expands, so too does the deficit
- This creates a scenario of a rising deficit and a contracting fee-paying customer base
- If settings do not or cannot absorb funding deficits then the consequence of continued under-funding is likely to be increased childcare costs for families and/or a retraction in the supply of funded places.

Research commissioned by the Department for Education and published in September 2014 reports that 46% of full day care providers[20] and 64% of sessional settings break-even or make a loss; a worrying picture in terms of the long-term sustainability of the sector and its ability to attract and retain private investment.

Table 5: Childcare provider financial performance in 2013

Performance in 2013	Full day care settings	Sessional settings
Make a profit or surplus	37%	25%
Covering costs	31%	43%
Operating at a loss	15%	21%
Don't know/refused	15%	9%

Source: Department for Education (2014) Childcare and Early Years Provider Survey 2013
2,929 Full day care and sessional settings excluding Children's Centres and school based provision

The provision of funded places for 40% of two year old children in England will be challenging to achieve in this context.

This analysis has clearly shown that as occupancy increases, *unit costs per hour fall*. This suggests public monies would be wisely invested in funding *existing quality provision* for two year olds to *appropriate levels*, thereby reducing barriers to entry/take up in the PVI market and using existing provision to its full potential.

There would also appear to be economic benefits in staging access to funded provision for cohorts of children across the year, avoiding the peaks and troughs created by term time attendance patterns.

[20] Department for Education (2014) Childcare and Early Years Provider Survey 2013. TNS BMRB Report JN 117328 September 2014 p192. Figures exclude Children's Centres and school based provision.

5.3 Labour costs

There has long been concern about the levels of pay and rewards in the early years sector, particularly in view of the recent emphasis on increasing the qualification levels of the workforce to enhance the quality of early years education and childcare provision.[21]

Latest research commissioned by the Department for Education suggests salary levels are starting to see an upward turn. The Childcare and Early Years Provider Survey found that between 2011 and 2013 the mean hourly pay of staff working in group-based providers increased more quickly than the UK average for all professions. The study reported a seven per cent rise in the mean hourly pay rate of staff working in full day care providers and in children's centres offering full day care (to £8.40 and to £12.00 per hour respectively), whilst there was a 10 per cent rise for staff working in sessional care (£8.70 per hour). Increases refer to a two year period[22].

The present study captured profile information for 1,389 early years staff including working hours, pay rates and qualification levels (highest full and relevant qualification level as defined for ratio purposes). This smaller sample shows a much less positive picture with an average pay rate of £7.77 per hour in sessional settings rising to £7.87 in full day care settings. Table six shows a breakdown of pay rates by qualification level.

Quoted hourly pay rates in both studies exclude employer on-costs.

It is noted that there is likely to be upward pressures on labour costs as qualification levels across the workforce increase and wages begin to catch up with inflation.[23] It is important that funding levels are indexed to inflation and cognisant of the costs of training and retaining a more highly qualified workforce.

Table 6: Hourly pay rates in the early years sector by qualification level

Qualification Level	Proportion of the workforce %	£ Average hourly pay excluding on-costs
Unqualified	9%	£6.18
Level 1	<1%	£5.40
Level 2	10%	£6.28
Level 3	62%	£7.43
Level 4	5%	£8.98
Level 5	5%	£8.64
Level 6 and above	7%	£9.11
Early Years Professional	4%	£10.73
Early Years Teacher	<1%	£12.30

Base: 1,174 staff for whom qualification data was provided.

[21] Nutbrown, C (2012) Foundations for Quality. The independent review of early education and childcare qualifications. Final Report. Department for Education, London.
[22] Department for Education (2014) Childcare and Early Years Provider Survey 2013. TNS BMRB Report JN 117328 September 2014 p134.
[23] Laing & Buisson (2013) Children's Nurseries UK Market Report 2013.

5.4 Business premises

The premises from which childcare businesses operate are also a substantial element of expenditure. There is a huge variation in the rent/mortgages paid by settings in the study ranging from 'peppercorn' rents to in excess of £100,000 per annum in a large private sector provider in London.

Property related costs are frequently the second highest cost category of nursery business operation after salary expenditure:

> "The financial performance of a nursery business is inherently linked to a very wide range of factors, including location and tenure. In England, in order for a property to trade as a day nursery it must comply with the Town and Country Planning (Use Classes) Order 1987 (as amended) and therefore hold D1 planning consent. In prime locations D1 space remains in short supply and Properties with D1 consent can command substantial premiums even on a vacant possession (VP) basis, whereas in territory locations D1 values can be depressed, due to demographics, low or solely state funded childcare demand, teamed with potentially low and unsustainable fee levels.
>
> Mortgage repayments are highly dependent on an operations individual circumstances; such costs are 'personal' and can therefore be difficult to quantify. However, for leasehold premises, far greater visibility is awarded in relation to rents and service charges. National evidence demonstrates significant variances. Rent payments can broadly range from between £5.00 to £45.00 per sqft, driven primarily by the location, demand and fee levels and for established businesses, rent as a percentage of removes can range from between 6 to 17%, or in some cases if over rented and under-trading, significantly more" Courteney Donaldson, Christie & Co.

Business rates are also an important cost centre and one which is heavily influenced by government policy. LEA base funding levels should therefore be cognisant of local and national business rates policy.

5.5 VAT in childcare businesses

PVI settings registered with Ofsted are classified as business activities relating to welfare services in a state-regulated institution; as such they are exempt from VAT and cannot charge VAT on their services or recover VAT on expenses.[24]

VAT is therefore an important element in costs and changes to prevailing VAT rates have a significant impact on expenditure. Membership bodies have lobbied for the introduction of zero-rated VAT status to bring down delivery costs.

[24] Value Added Tax Act (1994) Schedule 9, The Stationary Office, London.

Conclusions

This study set out to measure the cost of delivering one hour of quality early years education and childcare for funded two, three and four year old children in non-domestic PVI settings and to compare this with funding levels.

The analysis has shown a significant funding shortfall of an estimated £177 million in the case of funded three and four year old provision and £29.6 million for funded two year olds;[25] a total cost to the non-domestic PVI sector of £206.6 million per annum. This figure is an 'at cost' assessment which makes no allowance for the generation of surplus or return on private sector investment.

The introduction of the Early Years Pupil Premium will reduce the deficit for funded three and four year olds in the PVI sector by an estimated £19.5 million; 11% of the identified funding gap for this age group.

At the same time, the funding deficit for two year olds is set to widen as access to funded provision is extended to 40% of all two year old children.

Detailed analysis of occupancy levels, patterns of use and the changing mix of private and funded care suggests that as settings increase the number of funded children on roll, the proportion of the client base paying for and utilising care throughout the year is likely to fall. By default this leaves a smaller customer base to absorb any funding deficit.

This study would suggest that if settings do not or cannot absorb funding deficits the consequence of continued under-funding is likely to be increased childcare costs for families and/or a retraction in the supply of funded places; both being scenarios which undermine policy objectives to increase the affordability, quality and accessibility of early years education.

This research has provided insight into how resources are deployed in the delivery of funded early education within PVI settings operating from non-domestic premises. It is a starting point which can inform future debate. Further research will be required to assess how delivery costs vary across the year, within local markets and across the wider early years sector.

[25] Based on December 2013 take-up and prior to the expansion of funded provision to 40% of 2 year old children.

Annex: Overview of research methodology

Sampling strategy

A random stratified sample was recruited for the study via the following process:

1. A sample frame of eligible providers was obtained from Ofsted published inspection data[26]. The sample frame comprised 18,919 childcare providers on the early years register operating from non-domestic premises and with a published inspection outcome of good or outstanding at October 2013.
2. Records were stratified by region, IDACI[27] band and Ofsted outcome. A one in 5 sampling fraction was then applied to each sample cell to generate a random sample.
3. Sampled providers were contacted by telephone and follow up email to introduce the study, screen ineligible providers (maintained settings) and register interest in participation.
4. 557 eligible providers expressed an interest in taking part in the study and received study documentation.
5. 103 PVI providers completed the research process and returned study documents; 100 passed the quality criteria for inclusion in the analysis.

Margins of sample error

Table seven shows the range within which the true population mean (average) would lie had all settings in the eligible population (PVI providers on non-domestic premises with good or outstanding Ofsted grades) taken part. Confidence intervals are based on a 95% confidence level; that is to say we can be 95% sure that true population mean would lie within the reported range.

Table 7: Margins of sample error

Funded Children	£ Sample average cost per hour	Range at 95% confidence level
England		
2 year olds	£5.97	£5.62 to £6.32
3 and 4 year olds	£4.53	£4.17 to £4.89

[26] Ofsted (2013) Early Years and Childcare Registered Providers Inspection and Outcomes September 2012 to October 2013.
[27] Income Deprivation Affecting Children index, classified by setting postcode.

Labour on-costs

Settings reported hourly pay rates as paid to employees. 'On costs' were then calculated using minimum legal requirements and statistics published by the Office for National Statistics as outlined in table eight below.

Table 8: Calculating employment on costs

Employment on costs
Hourly pay rate plus:
Employer NI Based on LEL £153 per week and 13.8% Employers NI
Pension auto enrolment LEL £111 per week 1% employer contribution
Labour utilisation after deducting:
Hours lost through sickness Applied by occupation category on the basis of data published by the Office for National Statistics: Sickness Absence in the Labour market February 2014 p11
Training days per employee by sector Sourced from the UK Commission's Employer Skills Survey 2013: UK Results Table A.4.8 p145
Minimum holiday entitlement Statutory leave entitlement 5.6 weeks pro rata

It has not been possible to factor costs associated with maternity/paternity leave.

A detailed analysis of cost

The study is unique in tracking how staff resources are deployed at a very detailed level, enabling costs to be attributed per child per hour in ratio.

Diaries provided a continuous anonymised[28] record of adults and children in the setting across a ten day study period. 'In-ratio' labour costs were attributed to children at 5 minute intervals weighted according to the child's age. Labour *outside sessions* was tracked over the same study period and attributed to specific children on an un-weighted basis. Hourly costs for each child were then averaged across the study period.

Non-labour overheads and supernumerary labour costs were attributed via a three stage process:

1. Annual costs were determined and a 'study period' cost calculated as a proportion of total operating hours.
2. 'Study period' costs were then attributed to rooms based on the places the room offered as a proportion of overall capacity.
3. The 'room cost' was then attributed to individual children present within rooms on an un-weighted basis.

Visits were made to study sites without prior appointment in order to verify that study protocols were followed.

[28] Every adult and child was assigned a unique identity code; names relating to each code were stripped from study documentation prior to submission to the study team.

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