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Review of the Childcare Sector in Wales

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Review of the Childcare Sector in Wales

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Views expressed in this report are those of the researcher and not necessarily those of the Welsh Government.

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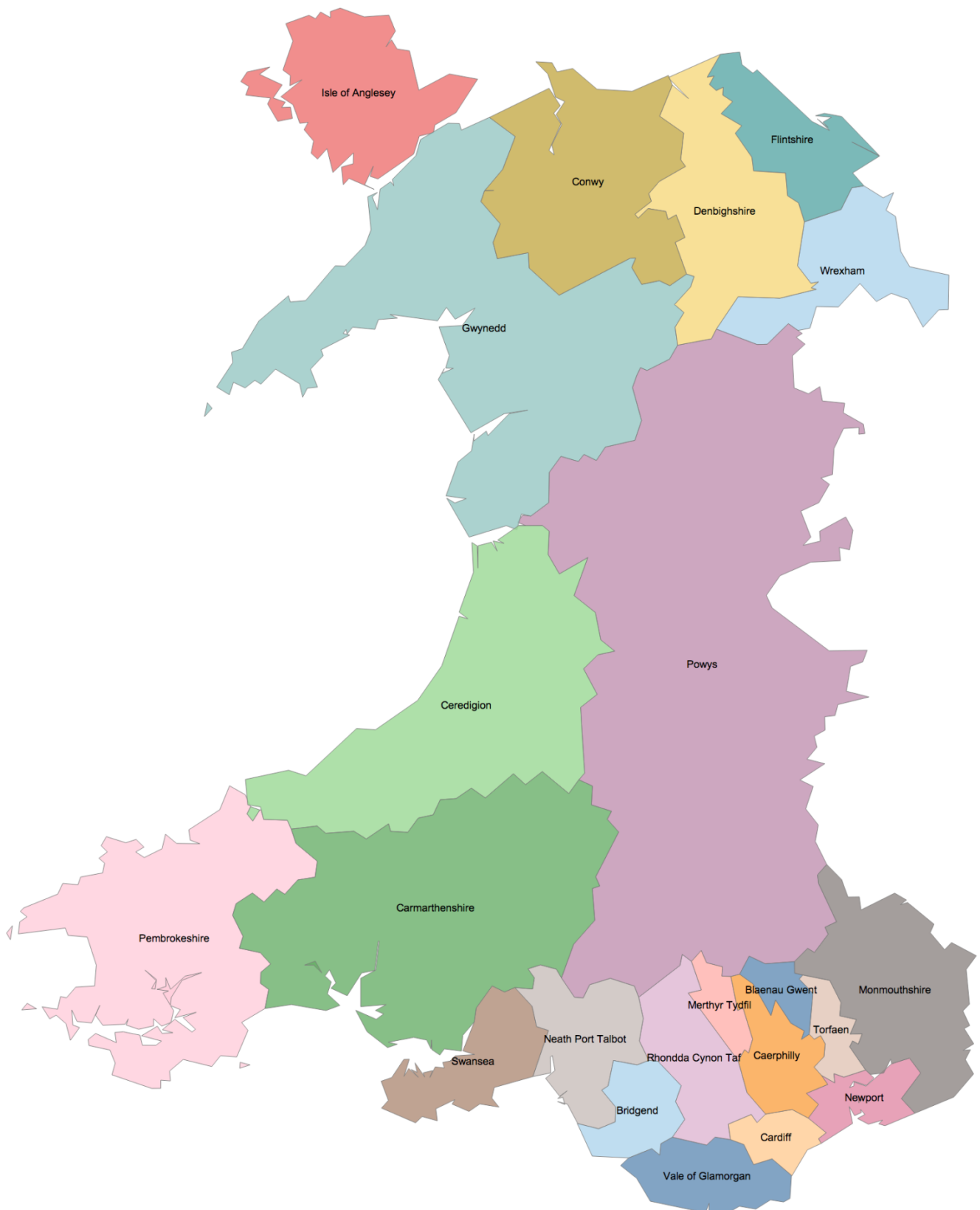
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Welsh Local Authorities



Acronyms

ALN	Additional Learning Needs
CCLD	Children's Care, Learning and Development
CSSIW	Care and Social Services Inspectorate Wales
CWLWN	Childcare Wales Learning and Working Mutually
ESF	European Social Fund
FRS	Family Resources Survey
LA	Local Authority
LFS	Labour Force Survey
NDNA	National Day Nurseries Association
NLW	National Living Wage
NMS	National Minimum Standards
NMW	National Minimum Wage
NSAF	National Survey of America's Families
NVQ	National Vocational Qualification
OBR	Office for Budget Responsibility
PACEY Cymru	Professional Association for Childcare and Early Years Wales
PPIW	Public Policy Institute Wales
SASS	Self-Assessment of Service Statement
SIC	Standard Industrial Classification
FPN	Foundation Phase Nursery

Executive Summary

The childcare sector plays a key role in the economic and social development of Wales. Childcare enables a large number of parents to work, and these parents go on to collectively generate an estimated £1.2 billion in income¹ per year, supporting economic growth and poverty reduction across Wales.

The childcare sector workforce is generally low paid, but it is a large employer of over 17,000 people. The sector has grown in recent years, and it has the potential to expand further. While many of the providers we surveyed (particularly childminders) stressed there were both obstacles and risks to expansion, sector participants overall felt they would be able to meet increased demand given sufficient time to make the required adjustments (i.e. recruiting new staff, upgrading premises).

The low profit margins under which most providers operate render them vulnerable to abrupt changes to regulation and funding – and hence it is critical that policy changes are designed and implemented carefully so as not to affect the sector's long-term sustainability.

The Childcare Offer for Wales is likely to be the primary driver of change for the childcare sector in the coming years. Currently, all 3-4 years olds are entitled to a minimum of 10 hours per week of early years education during term time. The Childcare Offer will combine these hours with up to an additional 20 hours of childcare in term time for households where both parents are working a minimum of 16 hours per week. For the 9 weeks of school holidays, 3-4 year olds will receive 30 hours of childcare. A phased roll-out of the Childcare Offer for Wales will commence in September 2017 and is expected to cover the whole of Wales by 2020.

The proposed Childcare Offer for Wales will create a range of opportunities and challenges. Through understanding the childcare sector, the Welsh Government can develop policies which look to facilitate the provision of

¹ The £1.2 billion refers to the total income from employment and self-employment of the lowest-earning parent (including lone parents) in households in Wales using formal childcare. However, it may be the case that some of these parents may still be able to work in the absence of formal childcare.

flexible, affordable and high-quality childcare in a sustainable and cost-effective manner.

Childcare providers

In December 2016, 4,012 childcare providers were registered with Care and Social Services Inspectorate Wales (CSSIW). The majority of childcare providers are childminders (52%). The remaining childcare provision is delivered by sessional day care settings (20%), full day care settings (17%), out of school care settings (10%), open access play provision (1%) and crèches (0.5%)².

The total number of childcare places in Wales increased from 76,000 in 2012 to 84,000 in 2017. Full day care places and after-school care places are most frequently offered and used.

The Alma Economics Childcare Survey³ estimates that around 65% of childcare settings are private providers, 18% are voluntary (majority of sessional care providers e.g. play groups) and 12% are public (likely to be full day care).

The childcare workforce

It is estimated that there are around 17,300 childcare workers in Wales with further expansion expected in coming years⁴. The majority of childcare workers are employed by small businesses or are self-employed (childminders). Around 80 percent of workers are employed on a part-time basis, working fewer than 35 hours per week⁵.

There is evidence to suggest that qualification levels in the childcare workforce have increased over the past decade. In 2016, three quarters of

² CSSIW's directory of registered children's day care settings – December 2016.

³ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

⁴ CSSIW's Self-Assessment of Service Statement 2016.

⁵ Alma Economics Childcare Survey 2017 - figures are indicative only and should not be used to make comparisons over time.

workers held a Level 3 Children's Care, Learning and Development qualification or higher⁶.

The Alma Economics Childcare Survey⁷ found that employees in the sector are relatively low-paid, with around half of all workers earning between £7- £8 per hour in 2016-2017. Only 12% of staff earn over £9.00 per hour gross, which suggests that that plans to increase the National Living Wage (NLW) to £9.00 by 2020 are likely to have a major impact on the sector.

Value of the sector

Based on analysis using the Family Resources Survey (2015/16), it is estimated that the total employment and self-employment income per year of households with dependent children aged 0-19 accessing some form of formal childcare was around £3.7 billion in 2015-16. When considering parents of at least one 3-4 year old child, the equivalent figure was just under £1.3 billion.

Arguably, in two-person households the highest earner would be able to work even in the absence of formal childcare, The total employment/ self-employment income of the lowest-earning parents/ lone parents of dependent children aged 0-19 in 2015/16 was £1.2 billion, while the total income of lowest-earning parents/ lone parents of at least one 3-4 year old was around £400 million. However, it may be the case that some of these parents may still be able to work in the absence of formal childcare (e.g. via the use of informal childcare).

Around 61,000 parents of dependent children in Wales (approximately 20% of all parents) stated they are prevented from working due to caring for their children – with 9 out of 10 being women⁸.

In terms of direct effects of the childcare sector on the economy, the Alma Economics Childcare Survey estimated the total amount spent on staff costs

⁶ Alma Economics Childcare Survey 2017 - figures are indicative only and should not be used to make comparisons over time.

⁷ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

⁸ Family Resources Survey - 2015/16.

in 2015-2016 was approximately £125 million.⁹ However, as many childminders do not include their personal income in staff costs and we received limited responses from crèches and open access play settings, this is probably an underestimate.

Cost of childcare

In 2015-2016, approximately £190 million was spent on operating costs (including staffing costs, utilities, rent, cleaning, training, catering and equipment) by the childcare sector in Wales¹⁰. Full day care providers accounted for around two thirds of the total spend.

We estimate that childminders, full day care settings and sessional care settings received approximately £195 million in income in 2015-2016¹⁰. In 2016-2017, approximately a quarter of the providers surveyed expected to operate at a loss, which is consistent with data from the previous two financial years. Sessional day cares and full day care settings were more likely to report losses.

⁹ Alma Economics Childcare Survey 2017. This data has been adjusted to be representative of the childcare sector as a whole. Sample size – 164. Figures are indicative only and should not be used to make comparisons over time.

¹⁰ Alma Economics Childcare Survey 2017 - figures are indicative only and should not be used to make comparisons over time.

Recommendations

To better understand the childcare sector and its impact, further research is recommended into the following areas:

- i) the impact of the National Living Wage;
- ii) the cost of regulations and how it may affect the behaviour of childcare providers;
- iii) the number of people prevented from working due to lack of sufficient access to childcare in Wales; and
- iv) specialist staff training requirements to care for children with additional learning needs.

1. Introduction

- 1.1 The Welsh Government commissioned Alma Economics to review the formal childcare sector in Wales. This work is part of a wider research programme to build a solid evidence base to inform proposed changes to childcare policy for 3-4 year olds. The report provides an overview of the current state and future prospects of the childcare sector in Wales.

Report structure

- 1.2 The aim of this report is to offer a review of the childcare sector in Wales and examine issues relating to the provision of childcare, including sustainability, costs and efficiency. The structure of the report is as follows:
- **Introduction and Methodology:** This section discusses the data sources used in the report and the overall methodological approach.
 - **Background:** This section examines the key issues that provide context to the report.
 - **Economic Assessment:** This section attempts to quantify the economic value of the childcare sector in Wales, recognising that it supports a large number of businesses and workers across Wales and enables parents to work.
 - **Provider Analysis:** This section examines the current characteristics of the sector, including capacity, service provision, and emerging challenges and opportunities.
 - **Cost Analysis:** This section contains detailed estimates of provider costs and income in the childcare sector.

Methodology

- 1.3 The review was informed by primary and secondary data analysis, desk-based research, and interviews with practitioners. A mixed-methods approach was applied to ensure a holistic understanding of the issues affecting childcare providers in Wales.

Literature review

- 1.4 The starting point for our work was the examination of existing academic, policy and sector-specific evidence. We reviewed the literature on a range of topics including factors associated to supply and demand, the impact of childcare on employment and income, challenges and opportunities facing the sector, and the potential income generated by the childcare sector (both direct and indirect). A summary of the key findings of the literature review is included in Annex 2.

Data sources

- 1.5 We have used five main data sources in our analysis:
- Care and Social Services Inspectorate Wales (CSSIW) directory of registered children's day care settings as of December 2016
 - CSSIW's Self-Assessment of Service Statement (SASS) 2015-2016
 - The Alma Economics Childcare Survey 2017
 - The Labour Force Survey – January 2016 to December 2016
 - The Family Resources Survey 2015-2016
- 1.6 CSSIW registers and inspects day care settings for children under 12 years of age according to the National Minimum Standards and Regulations. The CSSIW directory of registered children's day care settings provides information on the name, setting classification (e.g. full day care, sessional care, childminder), address, telephone

number and location for registered settings. As of December 2016, 4,012 settings were included in the directory.

- 1.7 As part of their registration with CSSIW, Responsible Individuals or Registered Persons are required to complete an annual SASS. The return collects more detailed information on a range of factors including language use, operating hours, childcare session rates and staffing. While informative, the SASS dataset has certain limitations. Firstly, our team was only provided access to individual level data from childcare providers that consented to share their information. In some cases, this data included contact details and in other cases the contact details were redacted. There were approximately 1,629 individual level entries in the dataset, which is approximately 40% of registered childcare settings in Wales. Of these entries, 682 provided contact details and consent to be contacted. In addition to the above, we were given access to aggregated information for all registered providers who responded (around 76% of the total number of providers). In the report, we make the distinction between the “individual level” and “aggregated level” data. It is also important to note, as with any self-reported survey, certain biases can arise from a respondent’s interpretation of questions and estimated responses. Some responses in the SASS lack consistency, and hence analysing certain aspects of the data requires additional modelling/ data cleaning.
- 1.8 It should be noted that the SASS dataset also provides information on the number of providers in Wales but the aggregated numbers are slightly different to the CSSIW directory of providers. The discrepancy is fairly minor but for consistency we have used the registered directory as the main data source for the number of childcare providers in Wales as it is linked to more detailed information.
- 1.9 To bridge knowledge gaps and collect more targeted information, Alma Economics also conducted a survey of childcare providers in

Wales. The Alma Economics Childcare Survey was administered online and promoted through two methods:

- A unique email link sent to the childcare providers who consented to be contacted via the SASS dataset (628).
- A generic email link promoted by Childcare Wales Learning and Working Mutually (Cwlwm), which is formed of Mudiad Meithrin, Clybiau Plant Cymru Kids' Clubs, National Day Nurseries Association (NDNA) Cymru, Professional Association for Childcare and Early Years (PACEY Cymru), and the Wales Pre-School Providers Association. The link was also promoted at provider events run in South, North and West Wales.

1.10 The survey was open from February 27, 2017 until March 20, 2017 and we received approximately 500 responses from 175 childminders, 167 sessional care settings, 122 full day care settings, 30 out of school care settings, 4 open access play settings and 2 crèches. While the results of the survey were informative, it is important to recognise certain limitations.

Table 1. Number of responses to the Alma Economics Childcare Survey

Childcare setting Type	Number of settings in Wales, at December 2016	Number of responses to the Alma Economics Childcare Survey	Percentage of settings that responded to the survey
Childminders	2,081	175	8%
Crèche	23	2	9%
Sessional Care	785	167	21%
Full Day Care	668	122	18%
Out of School Care	412	30	7%
Open Access Play	43	4	9%

- 1.11 We received far more responses from certain setting types than others. For example, around 20% of all sessional care settings and full day cares in Wales responded to the survey, while the response rate for other setting types was between 7-9%. Also, we received very few responses from crèches and open access play settings, although this reflects the limited number of these setting types across Wales.
- 1.12 Another limitation of the survey relates to completion rates. Approximately 50% of respondents that started the survey did not answer the final question. This is likely due to a variety of factors, including time restrictions, inability to answer certain questions, and the self-reporting format. Since some of the partially completed responses contain rich information, we did not exclude incomplete responses. To encourage accurate responses the majority of questions could be skipped.
- 1.13 While we had hoped the survey would allow us to draw conclusions on the relationship between cost categories and provider characteristics (e.g. additional needs, public/ private/ voluntary), data quality issues prevented us from examining some of these issues in detail.
- 1.14 The Labour Force Survey (LFS) is a survey-based study of employment in the UK conducted by the Office for National Statistics. The LFS is the source of official employment and unemployment rates in the UK. To increase the number of observations and allow for analysis at the sub-sector level, we utilised quarterly LFS data from January 2016 to December 2016. While the details in the LFS are reported with a high degree of accuracy, it is important to note the biases that are associated to all sample-based methods are still present. Consequently, the LFS datasets provides estimates rather than definitive figures.

- 1.15 The Family Resources Survey (FRS) is a continuous household survey conducted by a consortium including the Office for National Statistics and the National Centre for Social Research. The FRS has been publishing annual reports since 1994 providing information about the incomes and living conditions and resources of households and families in the United Kingdom. For our analysis, we used the latest available FRS, covering the 2015/16 financial year.
- 1.16 Note that all estimates throughout the report are rounded, which may result in columns not adding to the total, as well as minor inconsistencies appearing in tables where quantities are expressed both in absolute levels and as percentages.

Arriving at population/ sector-level estimates from sample-based data

- 1.17 As discussed above, virtually all our quantitative information sources are sample-based, and hence adjustments are needed to arrive at population-level/ sector-level estimates.
- 1.18 Both the LFS and FRS data releases were weighted for to account for sample design and non-response bias, allowing estimates for the population to be made. Detailed documentation for how these weights are estimated and applied can be found at the UK Data Service website.
- 1.19 For SASS and the Alma Economics Survey the approach was the following. Unfortunately, due to the fact that neither of these surveys used a random sample, we cannot say that the responses received are representative of the population as a whole. Because we know how many registered settings of each provider type exist from the CSSIW register, we have calculated some sector-level estimates by weighting them for non-response. However, these estimates are not truly representative of sector behaviour due to the limitations discussed. Therefore, the figures should be treated as indicative only and should not be used to make comparisons overtime.

- 1.20 In almost all cases, the above process was carried out separately for each provider *type* (rather than for all providers taken together) to account for differential response rates between different provider types.
- 1.21 So, for example, to estimate total costs for the sector as a whole, we first estimated *average* costs for childminders only based on responses to the survey, and we then multiplied this average by the number of childminders across Wales to arrive at total costs for *all* childminders taken together. We then repeated this process separately for each other provider type (e.g. full day care providers, sessional care, etc.), before adding all the different provider type estimates together to arrive at total costs for the sector as a whole.
- 1.22 Note that we only present findings where we are reasonably certain that our sample size and quality of the responses is adequate to draw sufficiently robust conclusions. In cases where we expected results to be very imprecise and potentially misleading we either refrain from presenting estimates at all or we clearly state in the text that results should be treated as indicative only.

Qualitative information

- 1.23 The qualitative information referenced in this report is derived from two main sources: interviews with childcare providers and open text responses in the Alma Economics Childcare Survey.
- 1.24 We carried out 12 interviews with a mix of childminders, day care, sessional care, and out of school settings from across Wales. We interviewed providers from Cardiff, Ceredigion, Flintshire, Anglesey, Neath Port Talbot, Carmarthenshire, Wrexham and Rhondda Cynon Taf. While the interviewees selected had diverse characteristics (e.g. in terms of location, type of provider, size etc.), we did not intend to cover a representative sample of the population of Welsh providers. Consequently, any insights obtained through interviews have been

treated cautiously and referenced with supporting information where possible.

- 1.25 In the Alma Economics Survey, there were also sections where respondents could provide open text comments. We provided the option to include comments regarding the potential impact of the childcare offer and issues regarding current service provision. For example, we received around 100 comments regarding the childcare offer in Wales. These comments were utilised in conjunction with the interviews to gain an understanding of some emerging issues in the sector.

2. Background

- 2.1 Recognising that childcare enables parents to work, supports economic growth, and helps tackle poverty and inequality, the Welsh Government has made flexible, affordable and high-quality childcare a priority for the next five years (Children, Young People and Education, 2016; The Welsh Government, 2016a)¹¹. In particular, the Welsh Government has made a commitment to expand its free education and childcare offer for working parents of 3-4 year olds.

Early years education and childcare offer

- 2.2 As part of the Foundation Phase, 3-4 year olds are currently provided with a minimum of 10 hours of free early education per week for 38 weeks a year. This entitlement is delivered through a mixed market of non-maintained (i.e. private, voluntary and independent providers) and maintained settings (i.e. state-funded providers). In contrast to Scotland and England, early years education is more frequently accessed through Local Authority (LA) maintained school settings in Wales. In fact, in some LAs, funded places are solely delivered through maintained settings (Estyn, 2015). Of maintained education settings in Wales, approximately 83% (1321 schools) offer early years education to children under 5¹². In the SASS dataset, 16% of respondents (499 settings) provide early years education services. The variation between LAs also extends to the number of hours funded (i.e. some LAs provide more than 10 hours currently) and the funding rates (National Day Nurseries Association, 2016; Paull and Xu, 2015). In many maintained settings, the hours are offered over four or five days in the morning or afternoon, which can create issues with pick up and drop off for working parents (Evans et al., 2016). Approximately 93%

¹¹ For further details on the policy background, see Annex 2.

¹² Pupils by school and age group - Pupil Level Annual School Census (PLASC), July 2016

of 3-4 year olds access some early education provision in maintained schools¹³.

- 2.3 To support families in Wales, there is a commitment to provide additional hours of free childcare for 3-4 year olds. While the details of the policy are still being formulated, it is expected that families of 3-4 year olds would be eligible for, in addition to the current 10 hours of Foundation Phase education, 20 hours of childcare for 39 weeks of the year and 30 hours of childcare for 9 weeks of the year during the school holidays. Accessing the Foundation Phase hours is not a prerequisite for accessing the childcare hours. While the extra hours will be delivered through a mixed market, private, voluntary and independent providers are expected to account for the largest share. Also, there will be greater flexibility in how the hours are accessed, with the option of utilising up to two registered settings. Current proposals suggest that the entitlement will be limited to working families (i.e. the lone parent or both parents earn the equivalent of 16 hours a week at the National Living Wage) in which no parent earns over £100,000. The Welsh Government has committed significant funding to the expansion of the offer, including £10 million for a pilot in 7 LAs commencing in 2017 and £20 million in capital expenditure per annum from 2018 to 2019 for investment in childcare settings (Children, Young People and Education, 2016)¹⁴.
- 2.4 To understand the impact of the offer and to help design a programme that is attractive to the sector, the Welsh Government commissioned a study from the Public Policy Institute Wales (PPIW) and Frontier Economics. The PPIW report examined the impact of the increased entitlement for 3-4 year olds in Wales and concluded

¹³ This rounded estimate which compares the number of pupils aged 3 and 4 recorded in the Pupil Level Annual School Census (PLASC) at 10 January 2017 (a survey of maintained schools in Wales) and Office of National Statistics' mid-year population estimates for 2016. The PLASC 2017 records the age of pupils at 31 August 2016.

¹⁴ Further information regarding the implementation of the pilot is available at: <http://gov.wales/topics/people-and-communities/people/children-and-young-people/childcare/talk-childcare/pilot-areas/?lang=en>

that, with the work eligibility requirements, the policy would cost the Welsh government approximately £53 million (assuming 87% uptake and a delivery cost of £4 per hour) to £84 million (assuming 87% uptake and delivery cost of £5 per hour) (Paull and Xu, 2015). In addition, approximately 20,000 children would be eligible to participate. However, the overall impact on poverty reduction and the participation of mothers in the workforce, according to the study, is expected to be minimal. This is likely because lower income families tend to spend less on formal childcare and are more reliant on informal care provided by family and friends. Also, it was suggested that a more significant shift in income is required to make it worthwhile for mothers to work as other factors have more of an impact (e.g. the value placed on caring for children directly, other children that still require care, etc.). In addition, any change in childcare costs is partially offset by a reduction in reimbursement through the childcare element of Universal Credit and through the Tax-Free Childcare scheme, as additional free childcare hours could reduce the amount spent on childcare by parents.

Flying Start

- 2.5 Over the past few years, the Welsh Government has also progressively scaled up Flying Start, a programme to support children living in the most deprived areas of Wales. As part of Flying Start, families with two to three year olds living in target areas have universal access to 12.5 hours of childcare a week for 39 weeks a year and 15 sessions of flexible childcare during the school holidays. The childcare entitlement is part of a larger assistance package which includes early language development, enhanced health visiting, and parental support. In 2016-2017, 37,628 children benefitted from the programme (Statistics for Wales, 2017). Similarly to the 3-4 year old offer, Flying Start is delivered primarily through maintained settings with fewer non-maintained settings offering placements (National Day Nurseries Association, 2016).

THE 3-4 YEAR OLD OFFER IN ENGLAND

Lessons can be learned from the roll out of additional free childcare hours in other parts of the United Kingdom. Childcare providers and policymakers have been following developments in England as, despite the differences in the childcare market, there are similar implementation challenges faced, particularly with regards to funding rates and promoting sustainable provision.

Background: From September 2017, 3-4 year olds in England will be entitled to 30 hours per week of free childcare for 38 weeks a year. This entitlement will be available to families where both parents or one parent (in lone parent households) work at least the equivalent of 16 hours per week at the National Minimum or Living Wage but below £100,000 (Department for Education, 2017). Parents who do not meet these eligibility requirements will still be able to access the 570 hours of free early education or childcare per year that is currently offered. The current offer in England is usually taken as 15 hours a week for 38 weeks of the year. Pilot programmes for the new offer commenced in September 2016 in Hertfordshire, Newham, Northumberland, Portsmouth, Staffordshire, Swindon, Wigan and York.

Preliminary insights: The official evaluation of the pilot programme in England was published in July 2017. The preliminary reports provide an indication of some implementation challenges faced by the pilot programmes. For example, in York, where the pilot was extended to all providers and eligible children, initially the pilot funding rate was £3.95 for the additional 15 hours but the first 15 hours continued to be funded at £3.38 (Gaunt, 2016). The low funding rates and inconsistent charging structure was perceived by some to be unsustainable and needlessly complex. After consultation with the sector, the York City Council and Department of Education agreed to increase the funding rate to £4 per hour for all 30 hours. Also in order to improve sustainability, some settings have been charging parents for extras, such as meals and trips. The issues emerging from these pilots can provide an indication of some of the expected challenges and opportunities.

3. Economic Assessment

- 3.1 In this section, we explore the economic value of the childcare sector in Wales through the examination of direct effects (i.e. employment in the childcare sector and income earned by those in the childcare sector) and indirect effects (i.e. the employment and income earned by those who use childcare in order to work).

Direct effects

- 3.2 Defining the childcare sector is more challenging than may appear at first glance. The line between early years education and childcare is often blurred and can be used interchangeably in some contexts. For the purposes of this report, the childcare sector is identified as settings registered with CSSIW that care for children under 12 years of age (see Annex 1 for more detailed definitions of each setting type). However, it should be noted that this definition has limitations as some childcare settings are not required to be registered with CSSIW (for example, if childminders provide care for less than 2 hours a day or other forms of informal childcare).
- 3.3 The key source of information on registered settings is the CSSIW's Self-Assessment of Service Statement (SASS) dataset. However, in some cases, the information provided by SASS is either incomplete or unreliable. Consequently, we also utilised other sources of information to bridge knowledge gaps, including the Alma Economics Childcare Survey and the Labour Force Survey. The Alma Economics Childcare Survey was distributed to settings registered with CSSIW.
- 3.4 The Labour Force Survey has a different base sample and can provide a different view of the childcare sector. When looking at the dataset, we identified three approaches to isolating the childcare sector:

- I. Industry-based classification: This classification is based on the Standard Industrial Classification (SIC) of the entity that a person works for (whether as an employee or self-employed). For childcare, the two most relevant SIC categories are 'Pre-primary education' and 'Child day care activities'. This classification allows us to identify workers such as childminders and nursery nurses working in the sector, alongside workers in supporting roles (e.g. kitchen and catering staff, secretarial staff, etc.).
 - II. Occupation-based classification: This classification is based on the occupation of respondents to the LFS. In this context, our scope was limited to the following main occupations: 'Nursery nurses and assistants', 'Childminders and related occupations', and 'Play workers', regardless of the SIC of the entity they work for.
 - III. Wider classification: While there are substantial overlaps between the two classifications, there are also several people who only belong to one classification and not the other. For example, the occupation-based definition does not include support staff working in the sector (e.g. nursery cooks), while the industry-based definition does not include people that work for an employer that is not primarily a childcare provider, even if they are in an occupation related to the childcare sector (e.g. nursery nurses, childminders). An example may be an employer-run day care centre, or a crèche operating out of a hotel, or even a primary school that also delivers pre-primary education but is classified as a 'primary education' establishment for LFS purposes. Consequently, we also present analysis from a 'wider' perspective, which considers both the sector-based classification and the occupation-based classification.
- 3.5 It is worth noting that for all classifications, we only focus on the respondents' main job rather than any auxiliary jobs. These classifications are not fully aligned to the classification used by CSSIW to identify the childcare sector. However, analysis of the LFS can still provide useful insights in certain areas.

Employees in the childcare sector

- 3.6 The SASS includes information on the number of staff members in each registered childcare settings, including childminders. Based on the information provided in the 2016 returns, it can be estimated that the total number of staff in registered settings is around 17,300¹⁵. However, it should be highlighted that this number does not include workers in maintained settings that only provide early years education or settings which are not required to register with CSSIW.
- 3.7 In the draft 10-year plan for the early years, childcare and play workforce in Wales, it was noted that in 2012 Dallimore estimated that around 23,300 people work in childcare and Foundation Phase settings in Wales (including around 5,800 Foundation Phase classroom assistants) (The Welsh Government, 2014).
- 3.8 We utilised LFS data to understand the profile of these workers and the type of industries they work in. As outlined in Table 2, when examining the occupation classification, around two thirds of employees are nursery nurses and assistants. Also around 5,050 individuals work in the pre-primary education industry.

¹⁵ SASS 2016 – aggregated level data. The SASS dataset reports 13,143 based on a response rate of around 76%. Extrapolating this to the entire sector, we estimate the total number of staff to be around 17,300.

Table 2. Number of individuals working in the childcare sector in Wales¹⁶

Category	Total Number
Industry-based classification	13,600
Pre-primary education ¹⁷	(5,050)
Child day care activities ¹⁸	(8,500)
Occupation-based classification	14,100
Nursery nurses and assistants	(9,150)
Childminders and related occupations	(2,750)
Play workers	(2,200)
Wider classification (either sector-based or occupation-based)	18,000

3.9 For the financial year ending March 2017, the active workforce in Wales aged between 16 years and 64 years old consisted of approximately 1,423,000 individuals¹⁹. Consequently, based on SASS data, we can estimate that workers in childcare settings, including childminders, account for approximately 1.2% of the workforce in Wales. If we examine the figures reported by Dallimore in 2012, which include Foundation Phase assistants, and use the relevant economic activity estimate of the time, childcare and early years workers accounted for around 1.7% of the workforce.

3.10 To provide some context, this is a roughly similar proportion as in England. For the year ending March 2017, the active workforce in England aged between 16 years and 64 years old consisted of

¹⁶ Labour Force Survey, January – December 2016. Note these figures have been adjusted to be representative of the sector as a whole.

¹⁷ The occupations under this category include nursery nurses and assistants (3,700), teaching assistants (1,160) and educational support assistants (160).

¹⁸ Occupations under this category include – nursery nurses and assistants (2,900), childminders and related occupations (1,600), play workers (1,450) and other (including house parents and residential wardens, teaching and other educational professionals, customer service occupations, social workers, care workers and home carers, nursing auxiliaries and assistants, and kitchen and catering assistants) (2,600). Each number above represents a unique individual – i.e. for classification purposes, it is not possible for, say, a childminder to also be a play worker, or for someone to work in two sectors. Respondents to the LFS pick the one that better characterises their main job.

¹⁹ Office of National Statistics - Annual Population Survey: Summary of Economic Activity year ending 31 March 2017.

approximately 27,044,400 individuals²⁰. The Survey of Childcare Providers in England, 2016 estimated that there were 452,100 early years and childcare staff in England, including 83,400 reception staff. Consequently, childcare and early years workers account for 1.7% of the workforce in England. If reception staff are excluded, this figure is closer to 1.4%.

Employment structure

3.11 The majority of childcare settings are small businesses or self-employed operators. Close to half of the workers in the sector are employed in workplaces with 1 to 10 people. Comparatively few childcare workers are employed in workplaces with more than 50 employees.

Table 3. Number of employees (including self-employed) in the workplace by LFS classification²¹

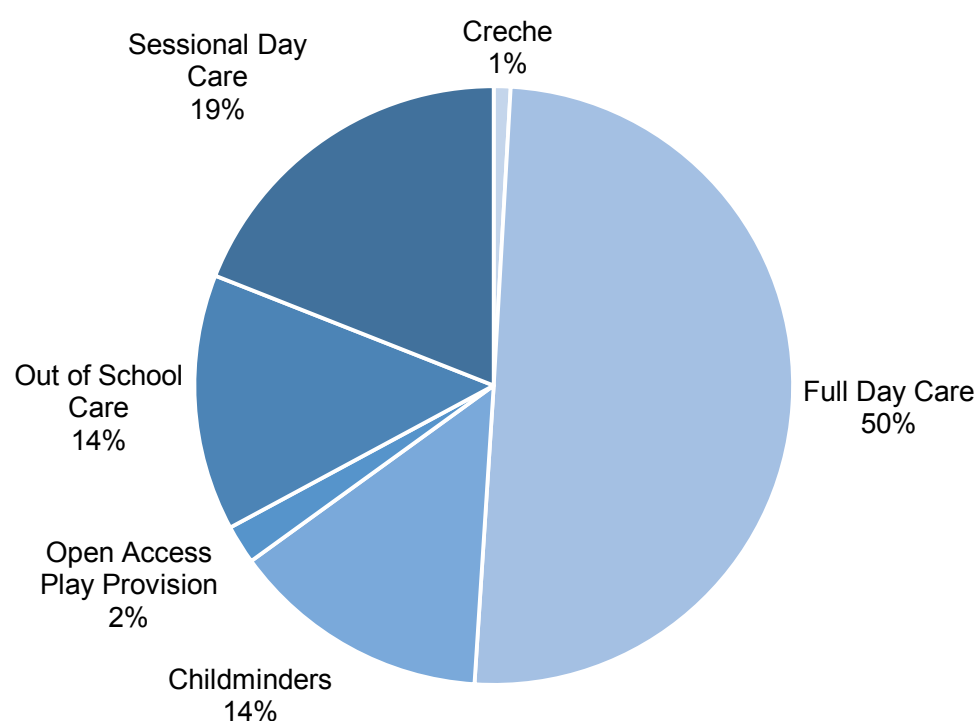
Number of employees in workplace (including self-employed)	Sector-based classification		Occupation-based classification		Wider classification (either sector-based or occupation-based)	
	Number	%	Number	%	Number	%
1-10	7,100	52%	5,700	41%	8,200	46%
11-19	2,500	18%	2,900	21%	2,900	16%
20-24	600	4%	830	6%	1,200	7%
25-49	1,400	10%	2,300	16%	2,500	14%
50-249	700	5%	-	-	700	4%
Do not know, but between 50 - 499	130	1%	-	-	130	1%
Do not know, but under 25	350	3%	350	2%	350	2%
Does not apply	800	6%	2,000	14%	2,000	11%

²⁰ Office of National Statistics - Annual Population Survey: Summary of Economic Activity year ending 31 March 2017

²¹ Labour Force Survey, January – December 2016. Note these figures have been adjusted to be representative of the sector as a whole.

3.12 The individual level SASS dataset provides information on the number of staff employed by childcare setting type. Full day care settings employ approximately half of all individuals working in the childcare sector in Wales. Sessional day cares are the next biggest employer in the childcare sector in Wales.

Chart 1. Childcare workers by setting type²²



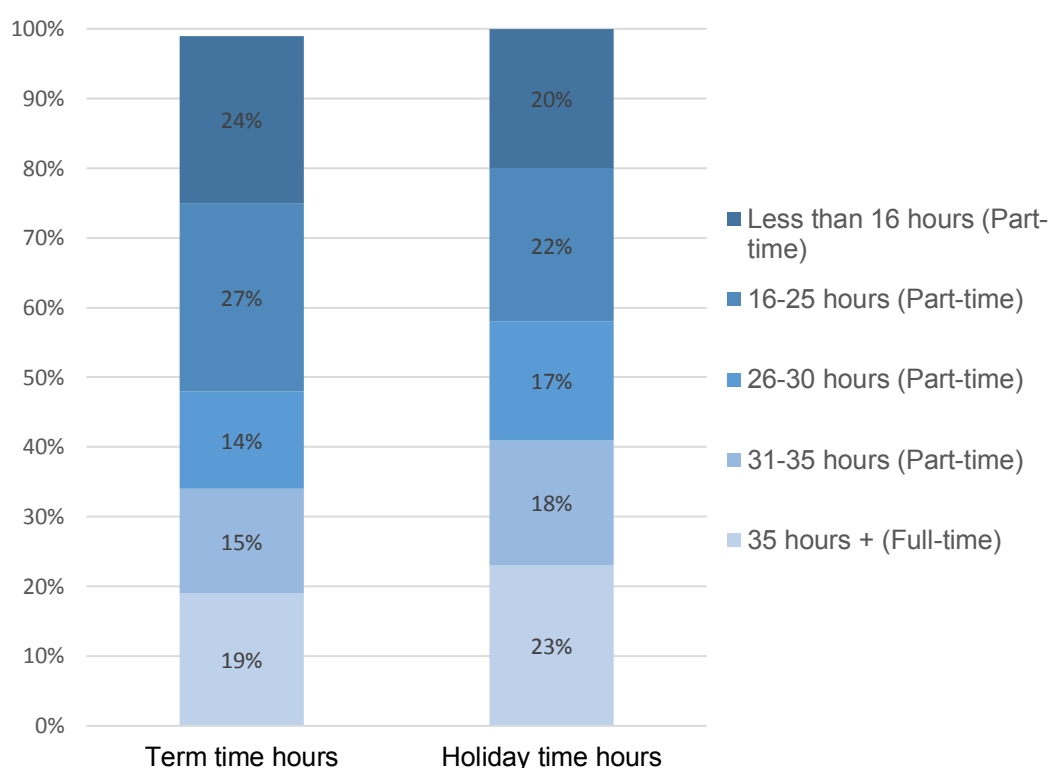
3.13 The majority of employees in the childcare sector work part-time (under 35 hours a week) in the average week. The providers who responded to this question in the Alma Economics Childcare Survey²³ reported that approximately 20% of staff (excluding self-employed) worked 35 hours or more in the average week during term-time. During the holidays, the proportion of workers reported to

²² SASS 2016 – individual level data. Responses have been adjusted to be representative of the sector as a whole; see methodology section for more details.

²³ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

be working over 35 hours is slightly higher than during term-time. Longer hours of care required, due to the absence of school hours, and lower demand for services are likely to be influencing this discrepancy.

Chart 2. Percentage of employees working full-time and part-time (excluding childminders)²⁴



3.14 In our conversations with childcare providers, several employers noted that increasing staff costs (particularly related to the National Living Wage and the pension auto-enrolment scheme) meant that part-time and zero hour contracts were on the rise. These flexible contracts are seen to allow providers to manage inconsistent attendance and tight margins more effectively, particularly during the

²⁴ Alma Economics Childcare Survey 2017. Sample size – 302 responses. Childminders were not included as they tend to be self-employed - figures are indicative only and should not be used to make comparisons over time.

school holidays. In addition, in interviews we heard that a few providers have increased salaries but decreased working hours in order to retain senior staff. For example, one provider mentioned the introduction of new fee structure which offers parents reduced rates for earlier pick up times, which meant staff with higher qualifications could work shorter hours and staffing ratios could still be maintained using less qualified staff with lower hourly rates. While this information is anecdotal, it may be indicative of an emerging trend and further investigation is required on how the NLW will impact employment in the childcare sector in Wales.

Qualification levels

3.15 Using SASS data, we estimate that approximately 60% of childcare staff hold a Level 3 National Vocational Qualification (NVQ). While the majority of the workforce has an NVQ, very few have a qualification above Level 6.

Table 4. NVQ qualifications – staff working in childcare settings²⁵

Qualification level	Estimated number of staff holding each qualification level	Percentage of staff holding each qualification level
NVQ Level 1	100	1%
NVQ Level 2	1,700	10%
NVQ Level 3	10,000	58%
NVQ Level 4	700	4%
NVQ Level 5	1,600	9%
NVQ Level 6	750	4%
NVQ Level 7	170	1%
NVQ Level 8	*	0%
Not specified	1,800	11%
None	400	2%

²⁵ SASS 2016 – Aggregated data. * denotes a value below 5 that has been suppressed for privacy. As the response rate for the SASS dataset is around 76 percent, the data has been adjusted to provide an estimate for all childcare providers.

3.16 In the Alma Economics Childcare Survey²⁶, we specifically asked about Children's Care, Learning and Development (CCLD) qualifications to understand whether the qualification levels reported in Table 4 are relevant to the childcare sector. The findings were generally consistent. Approximately 60% of the employees of providers who responded to the survey have a Level 3 CCLD qualification as their highest qualification. The survey findings indicated that three quarters of the sector are qualified at Level 3 CCLD and above. Only 7% of employees had qualifications unrelated to the childcare sector. The majority of employees with Level 6 CCLD were employed in full day care settings.

Table 5. CCLD qualifications in the childcare sector ²⁷

Qualification level	Estimated percentage of staff with each qualification
CCLD - Level 2	13%
CCLD - Level 3	59%
CCLD - Level 4	5%
CCLD - Level 5	11%
CCLD - Level 6	1%
Other qualification	7%
Unknown	4%

3.17 Qualification attainment in the childcare sector has been increasing over the past decade in Wales. For example, in an Early Years Workforce survey conducted in 2010, only 52% of workers were recorded with a Level 3 qualification (Care Council for Wales, 2010).

²⁶ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

²⁷ Alma Economics Childcare Survey 2017. Using our sample we worked out the average for the sample and multiplied it by the total population. Sample size – 301 - figures are indicative only and should not be used to make comparisons over time.

By 2014, approximately 57% of workers held a Level 3 qualification (Care Council for Wales, 2014).

Employee retention and recruitment

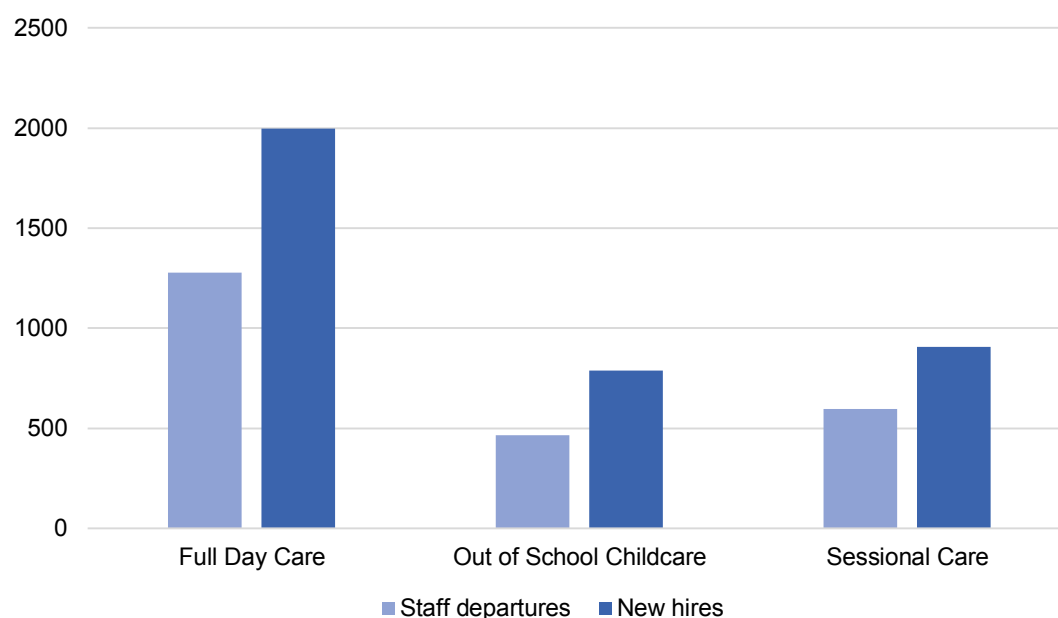
3.18 Based on analysis of LFS data, around 40% of employees in the childcare sector have been with the same employer for five years or more and around 75% with the same employer for more than two years. Approximately one in five employees have been with their current employer for less than 6 months.

Table 6. Length of time with current employer by LFS classification²⁸

Period of time	Occupation-Based Classification		Sector Based-Classification	
	Number	%	Number	%
Less than 3 months	600	4%	800	6%
3 months, less than 6	600	4%	700	5%
6 months, less than 12	1,600	11%	1,000	7%
1 year, less than 2	1,000	7%	600	5%
2 years, less than 5	4,300	31%	4,800	35%
5 years, less than 10	2,100	15%	2,900	21%
10 years, less than 20	2,300	16%	1,200	9%
20 years or more	1,700	12%	1,600	12%

²⁸ Labour Force Survey, January – December 2016

Chart 3. Estimated employee recruitment and departures – April 2015 to March 2016²⁹



3.19 The Alma Economics Childcare Survey³⁰ collected information on recruitment and departures in the sector over the past year. Overall settings have recruited more individuals than have departed. Out of school care settings showed the greatest proportional increase in staff in the past year, as shown in Table 7.

²⁹ Alma Economics Childcare Survey 2017. These figures have been adjusted to represent the sector as a whole. Due to limited sample sizes, we have excluded crèche, childminders and open access play provision settings. Only a small portion of childminders have staff members so we received very few responses from them. Sample size – 300 - figures are indicative only and should not be used to make comparisons over time.

³⁰ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

Table 7. Ratio of new hires to departures – April 2015 - March 2016³¹

	Estimated ratio of employee departure to recruitment
Out of School Childcare	1.7
Full Day Care	1.6
Sessional Care	1.5

- 3.20 Almost a quarter of respondents with an employee departure noted that an employee had left to work in a sector other than childcare³². Losing staff to education settings has been an ongoing issue for the childcare sector (NDNA, 2017). In our interviews with childcare providers, factors that contributed to departures include salary rates, working hours and a perceived status gap between the education and childcare sectors. Some providers noted with frustration that, despite increasing qualification levels and professionalism of the childcare sector, there is still a status disparity between education and childcare practitioners.
- 3.21 Some providers interviewed as part of the research also perceived particular challenges related to retaining younger staff members, specifically new graduates. Limited working hours, the lack of permanent contracts and low pay rates were issues that affected retention of young people. Some providers also felt that new recruits without sufficient practical experience also struggled to adjust to the working environment, which is often demanding. Further research is required to understand the extent of these issues across Wales.
- 3.22 The Welsh-medium settings we interviewed noted that recruiting suitably qualified staff with the required Welsh language skills was

³¹ Alma Economics Childcare Survey 2017. The ratio has been obtained using the data in Chart 3 - figures are indicative only and should not be used to make comparisons over time.

³² Alma Economics Childcare Survey 2017. Sample size – 288 - figures are indicative only and should not be used to make comparisons over time.

particularly challenging. As is discussed in further detail in Chapter 4, with the expected expansion of Welsh language provision, this will likely become a more pressing issue in the future. Approximately 55% of employees working in childcare-related occupations do not speak Welsh and only 27% speak Welsh on a daily basis³³.

3.23 Approximately a third of survey respondents found it difficult to recruit staff with full Children's Care and Learning Development level 2 or level 3 qualifications. While in some cases respondents report that apprenticeship programmes have helped with recruitment for Level 2 and Level 3 positions, issues highlighted previously regarding new entries to the sector and language requirements, alongside specific geographic factors, create recruitment challenges for providers.

3.24 Further research is required to identify specific challenges related to recruitment and retention in what is a quickly evolving landscape.

Apprenticeships

3.25 Based on responses to the Alma Economics Childcare Survey, we estimate that approximately 14% of all childcare settings currently have apprentices or trainees³⁴. Full day care settings take on the largest number of apprentices or trainees followed by out of school care settings.

3.26 The LFS survey data suggests that around 10% of the childcare workforce have completed an intermediate or advanced apprenticeship³⁵.

³³ Labour Force Survey, January – December 2016, based on occupation-based definition.

³⁴ Alma Economics Childcare Survey 2017. Sample size – 301 - figures are indicative only and should not be used to make comparisons over time.

³⁵ Labour Force Survey, January – December 2016.

Pay rates for employees

- 3.27 The Alma Economics Childcare Survey³⁶ also provides an insight into the salary rates for employees in the childcare sector. It is estimated that just over half of staff in childcare settings earn a gross hourly wage between £7.01 and £8.00. This corresponds with the National Living Wage (NLW), which was introduced in April 2016. The April 2017 NLW sets a minimum hourly wage of £7.50 for workers aged 25 and over. The National Minimum Wage rates still apply to workers under 25.³⁷ The Alma Economics Childcare Survey estimates that approximately 17% of the sector earn under £7.00 per hour gross. The workers included in this bracket are likely to be volunteers, apprentices and workers under 25 years old. Analysis of LFS data suggests that approximately 30% of the workforce is under 25³⁵.
- 3.28 The Alma Economics Childcare Survey³⁶ estimates that only 12% of staff earn over £9.00 per hour gross, which suggests that not only is childcare a low paid sector, but also that plans to increase the NLW to £9.00 by 2020 are likely to have a major impact. We discuss these issues in further detail in the provider analysis section.
- 3.29 Interestingly, the LFS data suggests that a higher proportion of workers earn less than the NLW threshold compared to our survey results.

³⁶ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

³⁷ The National Minimum Wage rates as of April 2017: £7.05 for workers aged 21 to 24; £5.60 for workers aged 18 to 20; £4.05 for workers under 18 years old and £3.50 for apprentices.

Table 8. Estimated staff salary rates in the childcare sector, excluding self-employed³⁸

Salary scale (per hour gross)	Percentage of staff
Below £5.00	3%
£5.00 - £6.00	4%
£6.01 - £7.00	10%
£7.01 - £8.00	56%
£8.01 - £9.00	16%
£9.01 - £10.00	6%
£10.01 - £25.00	6%
£25.00 - £40.00	0%
£40.00 above	0%

Table 9. Gross hourly wage for employees only³⁹

Pay band	Occupation-Based Classification	Sector-Based Classification	Wider definition (Either sector and occupation classification)
Less than £5	3%	10%	10%
£5 - £6	24%	29%	20%
£6.01 - £7	18%	20%	21%
£7.01 - £8	25%	23%	21%
£8.01 - £9	10%	4%	8%
£9.01 - £10	5%	0%	4%
£10.01 - £11	11%	6%	10%
£11.01 - £12	4%	4%	3%
More than £12	0%	4%	3%

³⁸ Alma Economics Childcare Survey 2017. The results exclude self-employed as perception of salary is different for childminders (e.g. some may not consider their profits salary) - figures are indicative only and should not be used to make comparisons over time.

³⁹ Labour Force Survey, January – December 2016. Please note that LFS records income details for employees only, excluding self-employed, and furthermore that several employees choose not to respond to the income questions – hence the figures should be seen as indicative.

- 3.30 Family and Childcare Trust analysis suggests that 20,000 nursery workers are being paid below the legal minimum wage in England (Jarvie, 2017). There is little Wales-specific evidence on these issues so a more detailed investigation is required to understand the extent that underpayment is relevant to the childcare sector in Wales.
- 3.31 It is interesting to note that, based on the LFS survey, employees with NVQ Level 2 qualifications receive roughly the same gross pay per hour as those with NVQ Level 3 qualifications, and even those with NVQ Level 4 and above: all three groups earned between £7.10 and £7.60 an hour on average. Those with qualifications below NVQ Level 2 however earned significantly less than that on average - £3.60 per hour. This likely reflects the fact that most employees in the sector without at least Level 2 qualifications are young and with limited work experience.

Overall staff income for the childcare sector

- 3.32 Based on the Alma Economics Childcare Survey, the total estimated amount spent on staff costs in 2015-2016 was approximately £125 million⁴⁰. However, this figure has two key limitations: i) we received no cost data from crèches and very little from open access play settings, although it should be noted that there are very few of these providers in the sector to begin with and ii) the data received from childminders was inconsistent and many did not include their personal income in staff costs. With these factors considered, this is likely to be an underestimate. The survey estimates that full day care settings spend significantly more on staff costs than other provider types, accounting for approximately 70% of the overall amount spent on staff in Wales.

⁴⁰ Alma Economics Childcare Survey 2017. This data has been adjusted to be representative of the childcare sector as a whole. Sample size – 164 - figures are indicative only and should not be used to make comparisons over time.

Table 10. Estimated annual staff costs (sector total) by setting type⁴¹

Setting type	Total staff costs
Childminders	£3,900,000
Full Day Care	£88,400,000
Out of School Care	£8,600,000
Sessional Care	£22,300,000

3.33 To place this figure in context, from the Alma Economics Childcare Survey⁴², we estimate that in 2015-2016 approximately £190 million was spent on operating costs (including staffing costs, utilities, rent, cleaning, training, catering and equipment) by the childcare sector in Wales. In addition, we estimate that childminders, full day care settings and sessional care settings received approximately £195 million in income in 2015-2016⁴³. These figures are examined in further detail in Section 5.

Indirect effects

3.34 This section focuses on the income from employment of households that use formal childcare, and it is based on data from the latest FRS (2015-16).

3.35 There are two important considerations for this analysis. Firstly, the findings presented here provide a snapshot of the labour market at a specific moment in time, and do not capture dynamic effects. For

⁴¹ Alma Economics Childcare Survey 2017. This data has been adjusted to be representative of the childcare sector as a whole. Sample size – 164 - figures are indicative only and should not be used to make comparisons over time.

⁴² The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

⁴³ Alma Economics Childcare Survey 2017. This figure includes the estimated income of childminders, full day care providers, sessional care as well as out of school care providers. Sample size – 151 - figures are indicative only and should not be used to make comparisons over time.

example, an individual who dropped out of the labour force for several years in the past to raise their children probably earns a lower wage today than they would with more experience – so even though they are now back in the labour force and their children may no longer be dependent, their past employment history still matters. Conversely, there may be individuals today benefitting from formal childcare that have relatively low income but will go on to become higher earners in the future as a result of gaining work experience today. As a result, the analysis here does not present the full picture of the likely impact of childcare across time.

- 3.36 The second factor to keep in mind is that we do not make any assumptions regarding how labour market outcomes would have been different in the absence of formal childcare. Many individuals who rely on formal childcare to work may have been able to find alternative means to do so if formal childcare was not available to them or its cost was prohibitive. The implication is that while formal childcare plays a vital role, it should not simply be assumed that in its absence all individuals currently relying on it would drop out of the labour force.

Formal and informal childcare

- 3.37 The FRS contains information on different childcare arrangements, which we classify as formal (e.g. day nursery, crèche, childminder) or informal (e.g. grandparents, child's brother, nanny/au pair). The table below provides more details on the classification used. It is interesting to note that the range of childcare options and providers included under 'formal childcare' appears to be broader than those covered by SASS: boarding schools and family/combined centres are not specifically included in SASS, and some of categories in the FRS are more specific (e.g. holiday schemes are included in a separate category).

Table 11. Family Resources Survey - Childcare arrangements classification

Formal	Informal
Playgroup or pre-school	Grandparents
Day nursery or crèche	Non-resident parent/ ex-spouse/ ex-partner
Nursery school	Child's brother or sister
Infant's school (Reception)	Other relatives
Infant's school (Nursery)	Nanny/Au pair
Primary school (Reception)	Friends or neighbours
Primary school (Nursery)	Other non-relatives (includes babysitter)
Out of school club	
Holiday scheme	
Family/combined centre	
Boarding school	
Childminder	
Other formal	

Parents using childcare

3.38 In Wales, 220,000 parents of 0-19 year olds (around one in three⁴⁴) use some form of formal childcare. Restricting our analysis to parents of at least one 3-4 year old, 92,000 parents use formal childcare out of a total of approximately 130,000 parents – i.e. around 70% of the total.

⁴⁴ There are approximately 620,000 parents of at least one dependent 0-19 year old in Wales. Note that, due to the way the FRS is designed and this number estimated, this estimate excludes parents who do not live in the same household as their children.

Table 12. Number of parents and households using childcare in Wales⁴⁵

	Using formal childcare	Using informal childcare	Both formal and informal	Either formal or informal
Number of <i>parents</i> using childcare (at least one 0-19 year old child)	220,000	226,000	114,000	332,000
Number of <i>parents</i> using childcare (at least one 3-4 year old child)	92,000	40,000	35,000	96,000
Number of <i>households</i> using childcare (at least one 0-19 year old child)	136,000	133,000	69,000	199,000
Number of <i>households</i> using childcare (at least one 3-4 year old child)	56,000	25,000	23,000	59,000

3.39 As shown in Table 12, approximately 72% of parents of 0-19 year olds using formal childcare are in either part-time or full-time employment (including self-employed), which is around 158,500 parents. The equivalent number of employed and self-employed parents of 3-4 year olds is 53,500 (58% of parents of 3-4 year olds using formal childcare). It is interesting to note that, as is to be expected, a higher proportion of parents of younger children are not in employment and are looking after the family home. Parents using formal childcare are employed in a wide range of occupations, broadly reflecting the wider Welsh labour market.

⁴⁵ Family Resources Survey - 2015/16. Rounded to the nearest '000s.

Table 13. Current status (self-reported) of parents using formal childcare in Wales⁴⁶

	Parents of 0-19 year olds using formal childcare		Parents of 3-4 year olds using formal childcare	
	Number	%	Number	%
Employee working full-time	110,000	50.2%	40,000	43.9%
Employee working part-time	37,000	16.9%	10,000	10.7%
Self-employed working full-time (including family workers)	7,000	3.1%	2,500	2.5%
Self-employed working part-time (including family workers)	4,500	2.0%	1,000	1.3%
Unemployed	12,000	5.4%	7,000	7.8%
Looking after family home	41,000	18.6%	25,000	27.4%
Long-term sick or disabled	6,000	2.7%	5,000	5.1%
Not in paid work for some other reason (including student, in training)	3,000	1.2%	1,000	1.2%
Total	220,000	100%	92,000	100%

3.40 Arguably, in two-person households the highest earner would be able to work even in the absence of formal childcare, and hence Table 14 repeats the analysis above but only including the lowest-earning parent (including lone parents) within each household⁴⁷. However, it may be the case that some of these parents may still be able to work in the absence of formal childcare (e.g. via the use of informal childcare).

3.41 Close to 60% (46,000) of the lowest-earning parents of 0-19 year olds using formal childcare are working full-time (whether as employees or self-employed), with the remainder in part-time work.

⁴⁶ Family Resources Survey - 2015/16. Numbers may not add up to total due to rounding.

⁴⁷ Note that the analysis here does not include lowest-earning parents with zero employment or self-employment income – e.g. those unemployed or economically inactive.

In the case of the lowest-earning parents of at least one 3-4 year old who are using formal childcare, 15,000 work full time (close to 70%)⁴⁸.

Table 14. Current status (self-reported) of lowest-earning parent (excluding parents with no employment/self-employment income) in households using formal childcare in Wales⁴⁹

	Parents of 0-19 year olds using formal childcare (lowest earning parent only)		Parents of 3-4 year olds using formal childcare (lowest earning parent only)	
	Number	%	Number	%
Employee working full-time	42,000	53.2%	14,000	63.6%
Employee working part-time	32,000	40.5%	6,000	27.3%
Self-employed working full-time (including family workers)	4,000	5.1%	1,000	4.6%
Self-employed working part-time (including family workers)	1,000	1.3%	1,000	4.6%
Total	79,000	100%	22,000	100%

Income from employment and self-employment

3.42 Total employment and self-employment income (gross) per year of households with dependent children aged 0-19 accessing some form of formal childcare was around £3.7 billion in 2015/16⁵⁰. If we only look at parents of at least one 3-4 year old child, the equivalent figure was just under £1.3 billion⁵¹.

⁴⁸ Note that the analysis in this paragraph does not include lowest-earning parents with zero employment or self-employment income – e.g. those unemployed or economically inactive.

⁴⁹ Family Resources Survey - 2015/16. Note that single parents are included in the calculation. In households where both parents earn the same (e.g. because they both have zero income from employment or self-employment) both parents are included. Numbers may not add up to total due to rounding.

⁵⁰ Family Resources Survey - 2015/16.

⁵¹ Family Resources Survey - 2015/16.

- 3.43 The total employment/ self-employment income of the lowest-earning parents/lone parents of dependent children aged 0-19 in 2015/16 was £1.2 billion gross, while the total income of lowest-earning parents/lone parents of at least one 3-4 year old was around £400 million gross.

Individuals prevented from working due to caring for their children

- 3.44 Based on the FRS, around 61,000 parents of dependent children in Wales stated that they are prevented from working due to caring for their children – with 9 out of 10 being women. Of this total, around 25,000 are accessing at least some formal childcare, 6,000 use some form of informal childcare, while 3,000 parents use both formal and informal childcare to some extent but still state they are prevented from working due to caring for their children. These results show that a significant number of parents that do use formal childcare are still prevented from working due to having to care for their children – whether because formal childcare is not available for the required number of hours, or whether it is unaffordable for them to procure childcare to the required amount.
- 3.45 Repeating the analysis above only for parents of at least one 3-4 year old child, 16,000 parents state they are prevented from working due to caring for their children. Interestingly, the vast majority of these parents (13,000) use some form of formal childcare, while only around 1,000 of them use informal childcare.

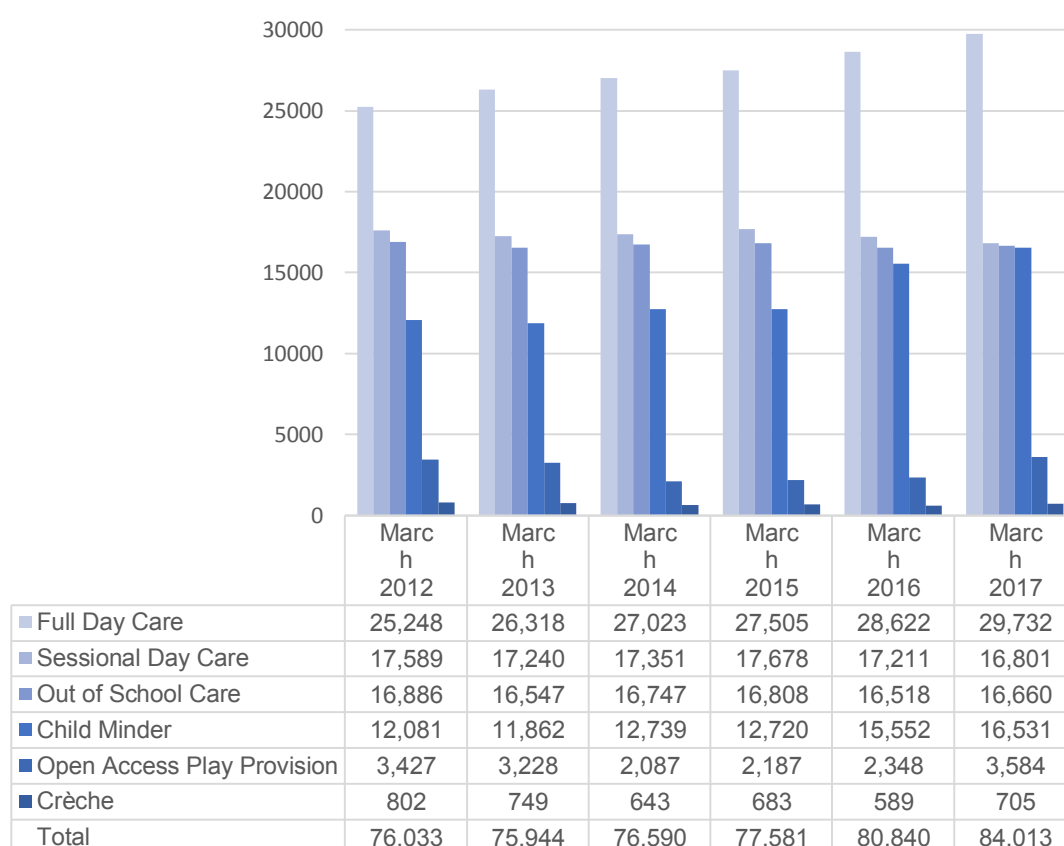
4. Provider Analysis

Historical trends

- 4.1 Over the past 20 years in the United Kingdom, childcare has moved from a peripheral issue managed by LAs to the centre of political debate at a national level. As noted by Rutter (2016), the number of nursery places in England and Wales has increased from 59,000 in 1990 to 1.7 million in 2016. Various factors have contributed to the transformation of the market, including growing demand due to gender equality and increasing evidence on the direct and indirect impacts of quality childcare and early years provision (Dallimore, 2014; Rutter, 2016).
- 4.2 The number of childcare places delivered by settings in Wales has increased from 76,033 in 2012 to 84,013 in 2017, an increase of 10% (Care and Social Services Inspectorate Wales, 2016). It is important to note that in April 2016, the age limit for registration of childcare and play was extended from 8 to 12 years of age so increases in recent years may partially be attributed to this change. Also figures presented for 2017 are based on interim findings, the official CSSIW bulletin will be published in June 2017. Despite these issues, we can still identify overarching trends.
- 4.3 The number of places delivered by out of school care and sessional day care providers has been largely stable, with a very minor drop recently. There has also been a substantial decrease in the number of places delivered by crèches and an increase in the number of places delivered by childminders. From 2012 to 2017, approximately 4,450 additional places were delivered by childminders, an increase of approximately 27%. While some of this increase can be attributed to the change in the registration age limit, it has also been suggested that “Building a Brighter Future: Early Years and Childcare Plan” encouraged the development of non-maintained settings in Wales (Dallimore, 2014). Over the past 5 years there has also been a

moderate increase in the number of places delivered by full day care settings.

Chart 4. Number of childcare places by setting type in Wales - 2012 to 2017⁵²

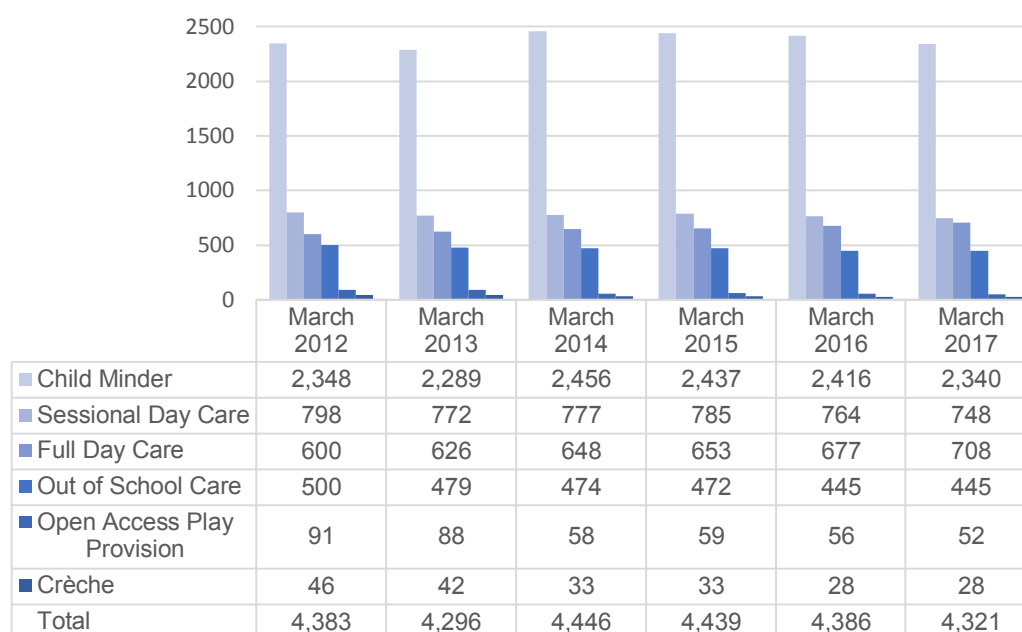


4.4 While the overall number of childcare places has increased, the number of providers has remained roughly the same. This indicates that the number of childcare places delivered by the average setting has increased since 2012. As shown in Chart 5, the most pronounced difference has been for open access play provision and

⁵² CSSIW administrative data. The total number of settings in the CSSIW's administrative dataset is slightly different to the totals provided by the CSSIW's directory of registered children's day care settings as the reporting period is different and the directory takes into account any new registrations, suspensions and cancellations. We use the data from the directory of registered settings as of December 2016 for the bulk of our analysis as it contains a greater level of detail. However, we utilise the administrative data in this section due to availability of trend data.

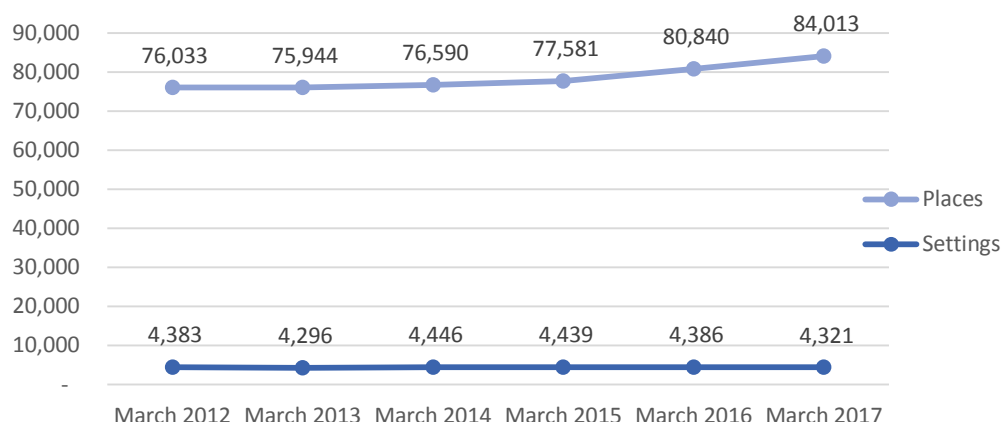
crèches. Both settings have almost halved in number from 2012 to 2017.

Chart 5. Number of childcare settings in Wales – 2012 to 2017⁵³



4.5 When comparing the number of settings to the number of places delivered, it is evident that full day care settings and sessional care settings cater to larger numbers of children, while childminders cater to fewer children. We examine these issues in greater detail later in this chapter.

⁵³ CSSIW administrative data.

Chart 6. Total number of childcare places and childcare settings in Wales – 2012 to 2017⁵⁴

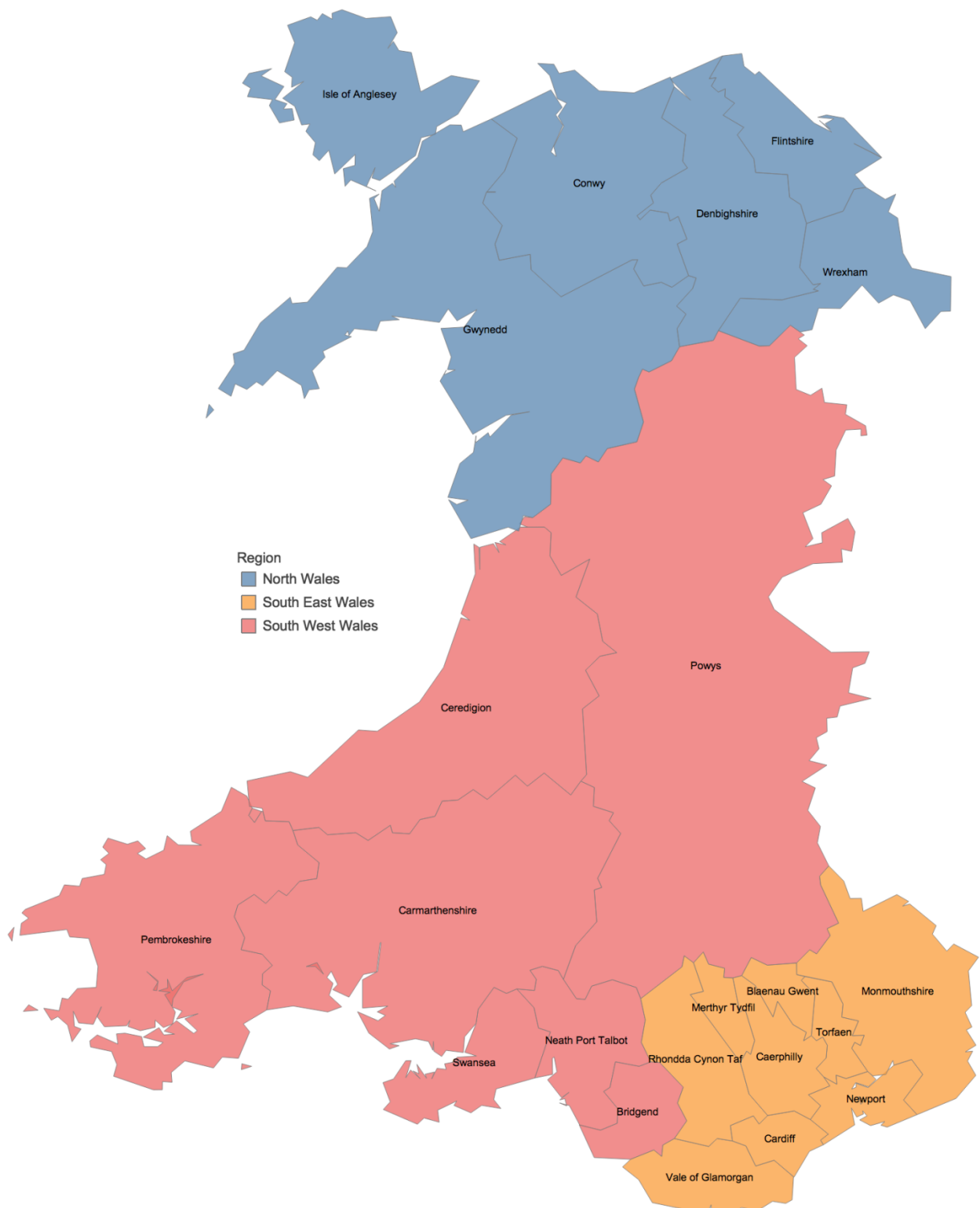
Classifications

- 4.6 In this section, we explore the distribution of providers and other characteristics by region and urban/ rural classification. The CSSIW Directory of Registered Children's Day care Settings utilises three broad regions to classify providers: North Wales (Conwy, Denbighshire, Flintshire, Gwynedd, Isle of Anglesey and Wrexham), South East Wales (Blaenau Gwent, Caerphilly, Cardiff, Merthyr Tydfil, Monmouthshire, Newport, Rhondda Cynon Taf, Vale of Glamorgan and Torfaen) and South West Wales (Bridgend, Carmarthenshire, Ceredigion, Neath Port Talbot, Pembrokeshire, Powys and Swansea).
- 4.7 To examine issues related to urban/ rural characteristics, we use Statistics for Wales' (2008) LA level classifications which group LAs into 4 categories: rural, urban, valleys and other. Rural LAs have a population density below the Wales average of 140 persons per square kilometre. The Valleys LAs are part of the Heads of the Valleys action area. The 3 Urban LAs contain the three largest settlements in Wales. Those classified as 'other' are not included in the above definitions. It should be noted that this approach is imprecise and there will inevitably be areas that are more or less

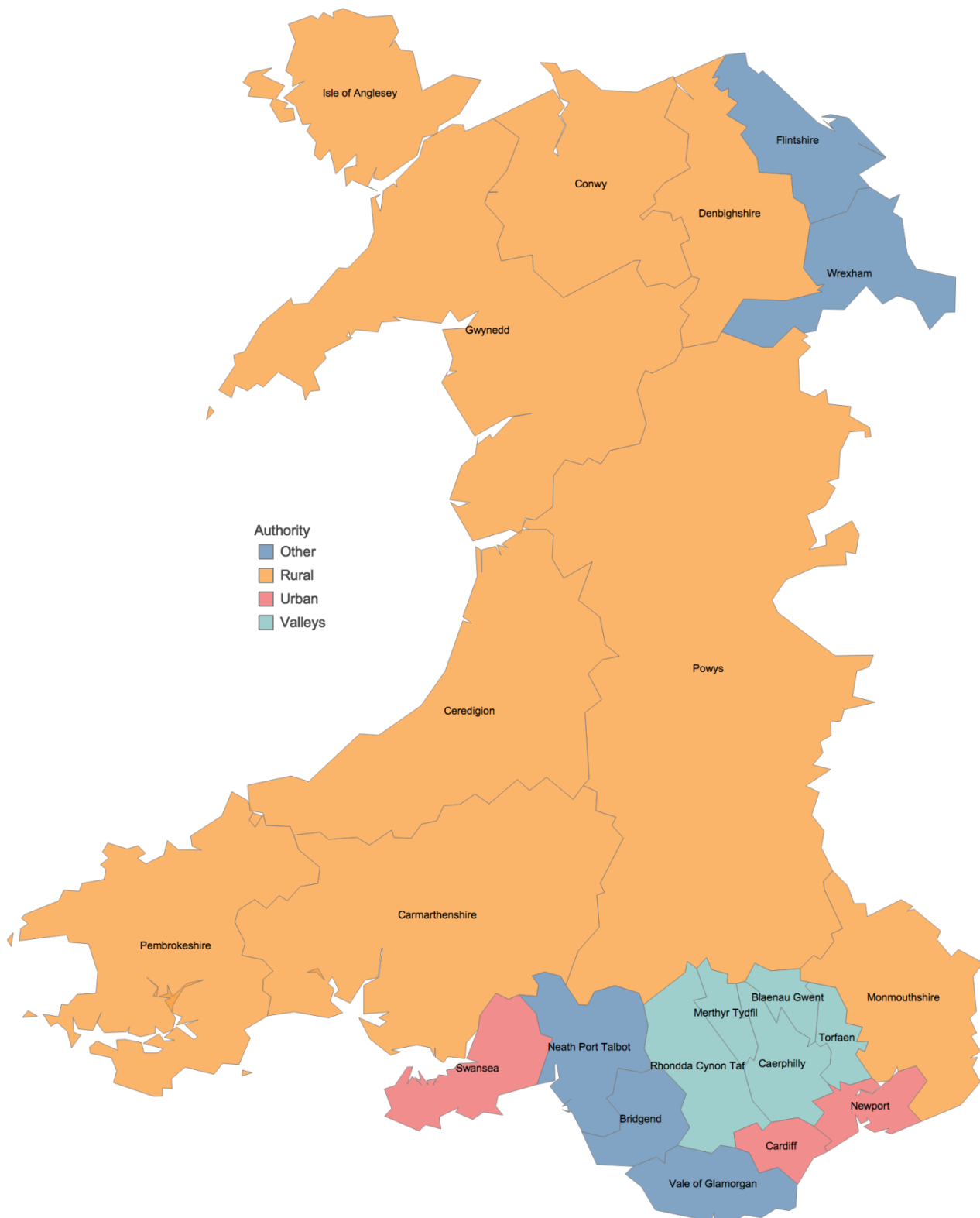
⁵⁴ CSSIW administrative data.

populated within each LA. However due to the nature of the data we have access to, the most consistent approach is to discuss these issues at LA level.

Map 1. Welsh regions



Map 2. Welsh LAs classified by urban, rural, valleys and other⁵⁵

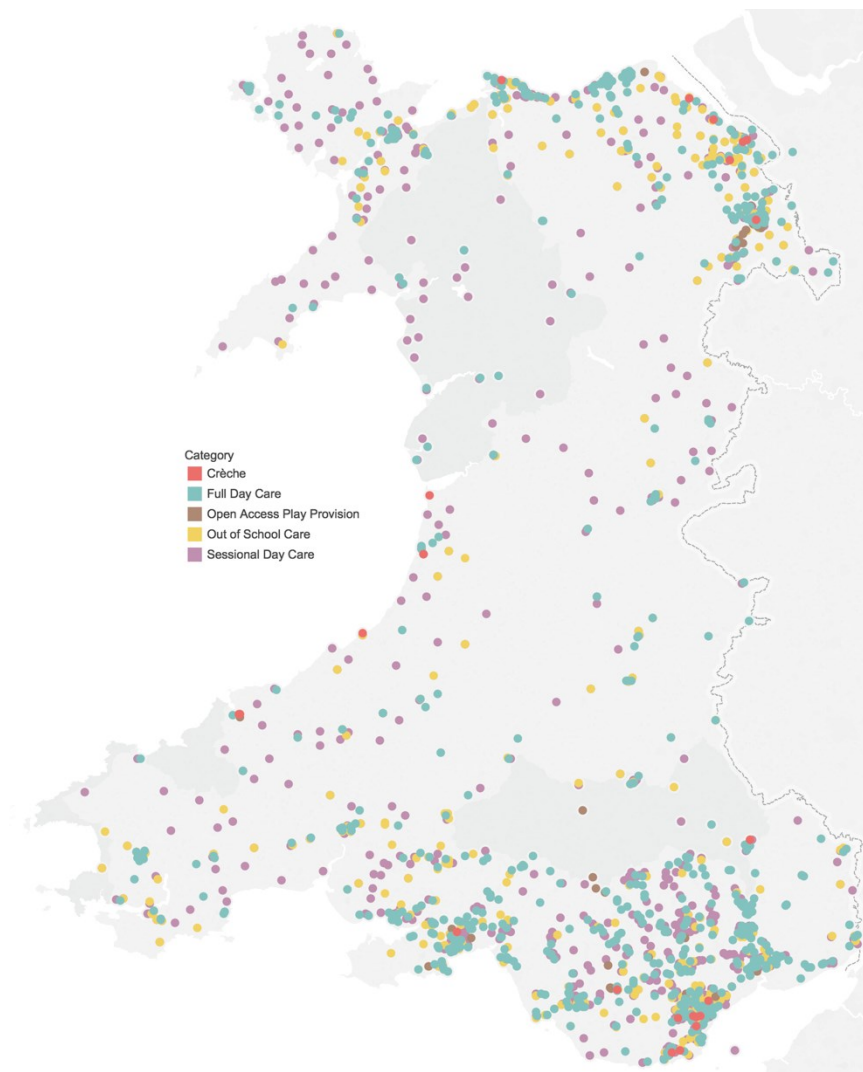


⁵⁵ Statistics for Wales (2008).

Overview of settings

4.8 As highlighted in Chapter 1, the childcare sector in Wales is extremely diverse comprising of small, medium and large businesses with varying service provision and capacity. As of December 2016, 4,012 childcare providers were registered with CSSIW. This total consisted of 2,081 childminders (52% of all settings), 785 sessional day care providers (20%), 668 full day cares providers (17%), 412 out of school care providers (10%), 43 open access play provision settings (1%), and 23 crèches (0.5%).

Map 3. Childcare providers in Wales (excluding childminders)⁵⁶



⁵⁶ CSSIW Directory of Registered Children's Day Care Settings – December 2016. Childminders have not been included as we do not have access to their location data.

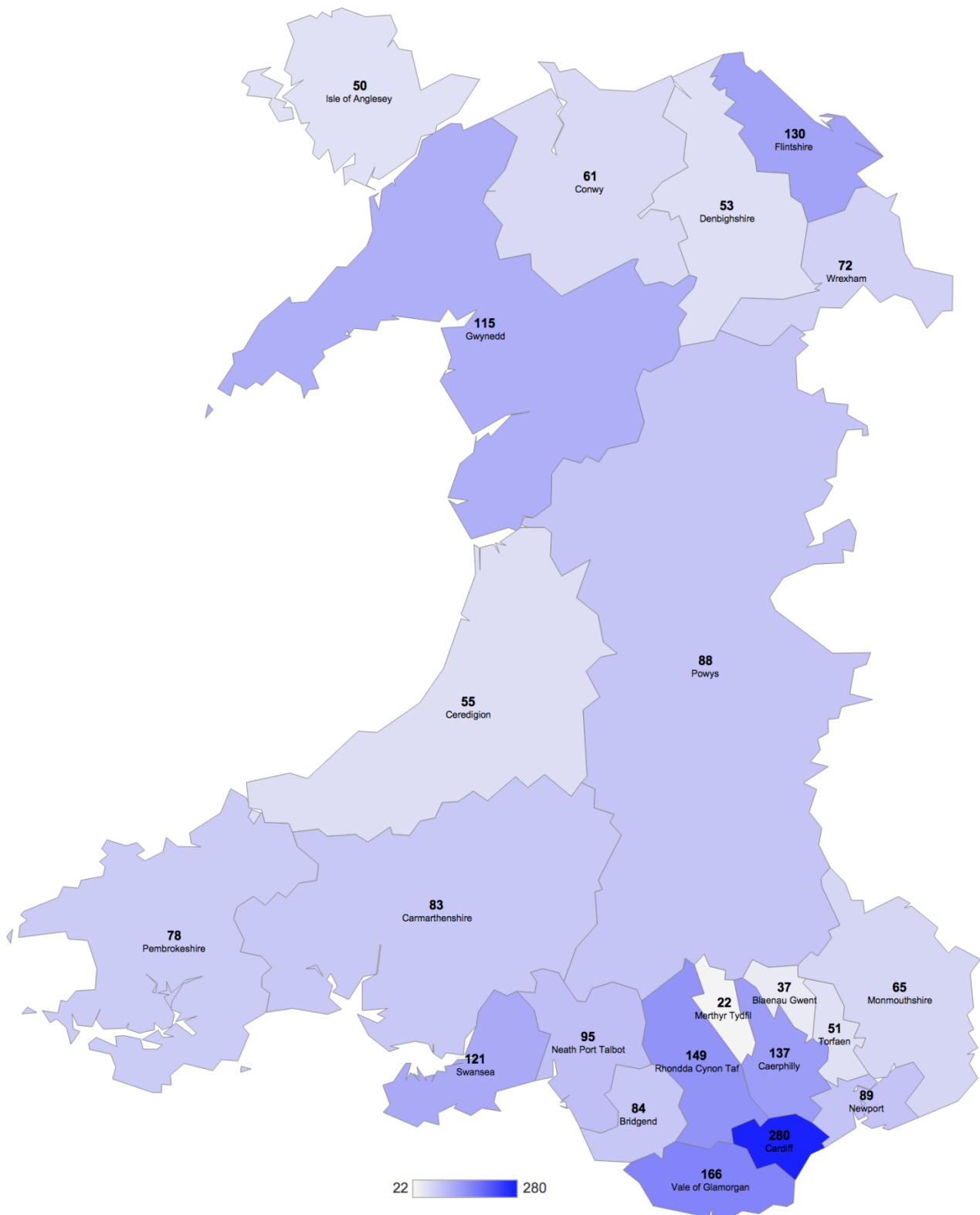
- 4.9 As shown in Map 3, sessional day care, out of school care and full day care settings are found in all areas of Wales. In contrast, open access play and crèches are concentrated in urban areas and areas with higher population density.

Childminders

- 4.10 In South East Wales, childminders account for around 60% of childcare providers, which is far higher than in North Wales (42%) or South West Wales (50%). A quarter of all childminders in Wales are located in the three LAs classified as urban. The higher concentration of rural areas in North and South East Wales may explain this disparity. It has been noted that delivering sustainable childcare services in rural areas can be challenging due to issues such as rural employment opportunities (including pay rates and seasonal employment) and dispersed populations (Dallimore, 2014). As childminders deliver fewer places, they are more sensitive to change and the challenges facing rural childcare providers are likely to be more pronounced.
- 4.11 It is also important to note that Merthyr Tydfil and Blaenau Gwent, which have the highest proportion of deprived areas according to the Welsh Index of Multiple Deprivation, also have the lowest number of childminders⁵⁷.

⁵⁷ Welsh Government – Welsh Index of Multiple Deprivation 2014 Local Authority Analysis. 23% of Lower Layer Super Output Areas (LSOAs) in Blaenau Gwent and 22% of LSOAs in Merthyr Tydfil were included in the most deprived 10% of LSOAs in Wales.

Map 4. Childminders by LA⁵⁸



⁵⁸ CSSIW Directory of Registered Children's Daycare Settings as of December 2016.

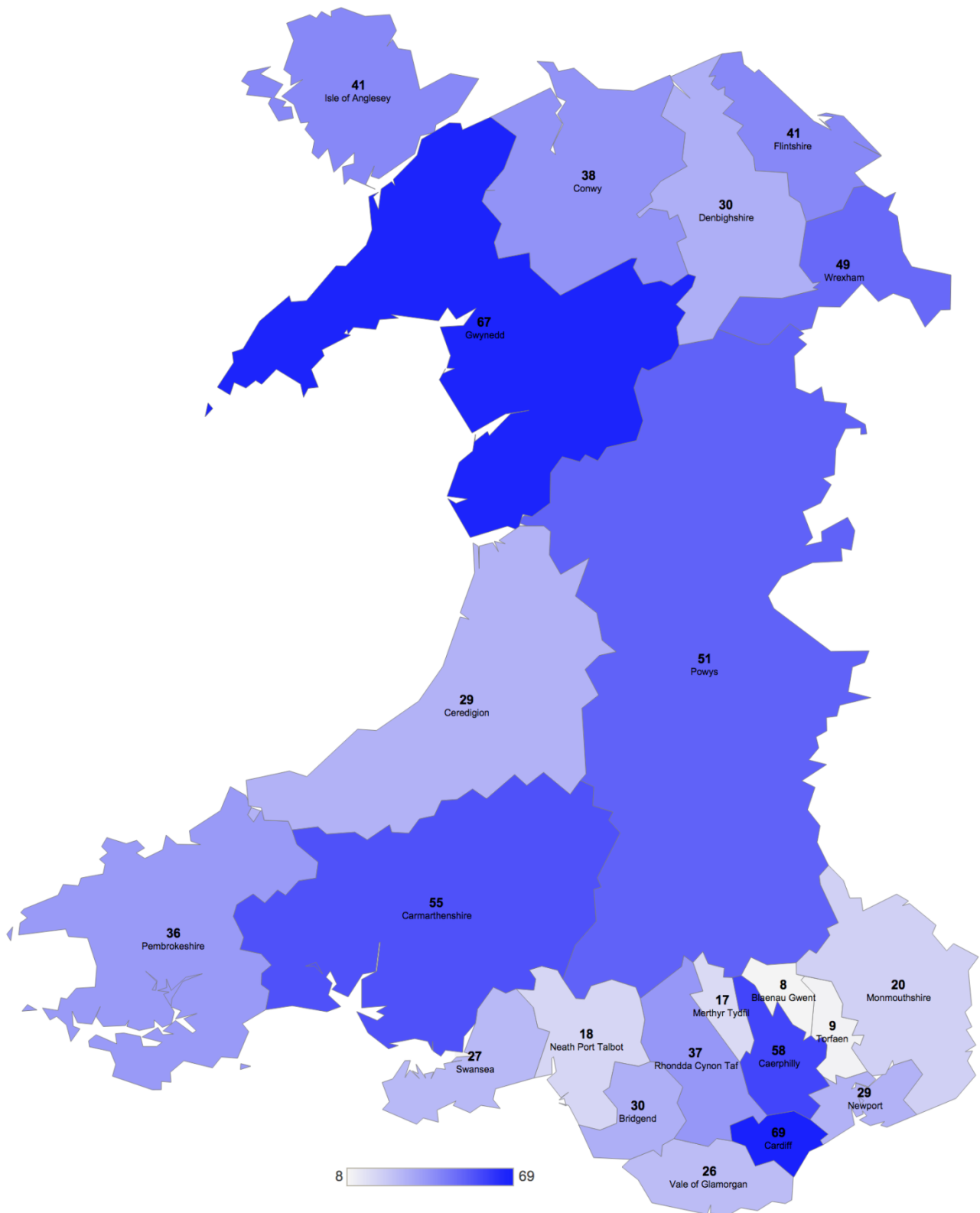
Sessional day care

4.12 In regions with a greater number of rural LAs, such as North Wales and South West, there tends to be a slightly higher number of sessional day care providers. Approximately a quarter of all childcare providers in North Wales are sessional day cares compared with a sixth of all childcare providers in South East Wales⁵⁹. As with childminders, Blaenau Gwent has the lowest number of sessional day care settings, especially when considering that the population of children aged 0 to 4 is similar to Merthyr Tydfil (3808 in Blaenau Gwent compared to 3755 in Merthyr Tydfil)⁶⁰. Gwynedd and the Isle of Anglesey have the lowest number of children aged 0 to 4 compared to the number of sessional care settings. This is likely due to concentration in Cylch Meithrin of areas with a high percentage of Welsh-speakers.

⁵⁹ CSSIW Directory of Registered Children's Daycare Settings as of December 2016

⁶⁰ Office of National Statistics Mid-year population estimates, 2016.

Map 5. Sessional day care by LA⁶¹



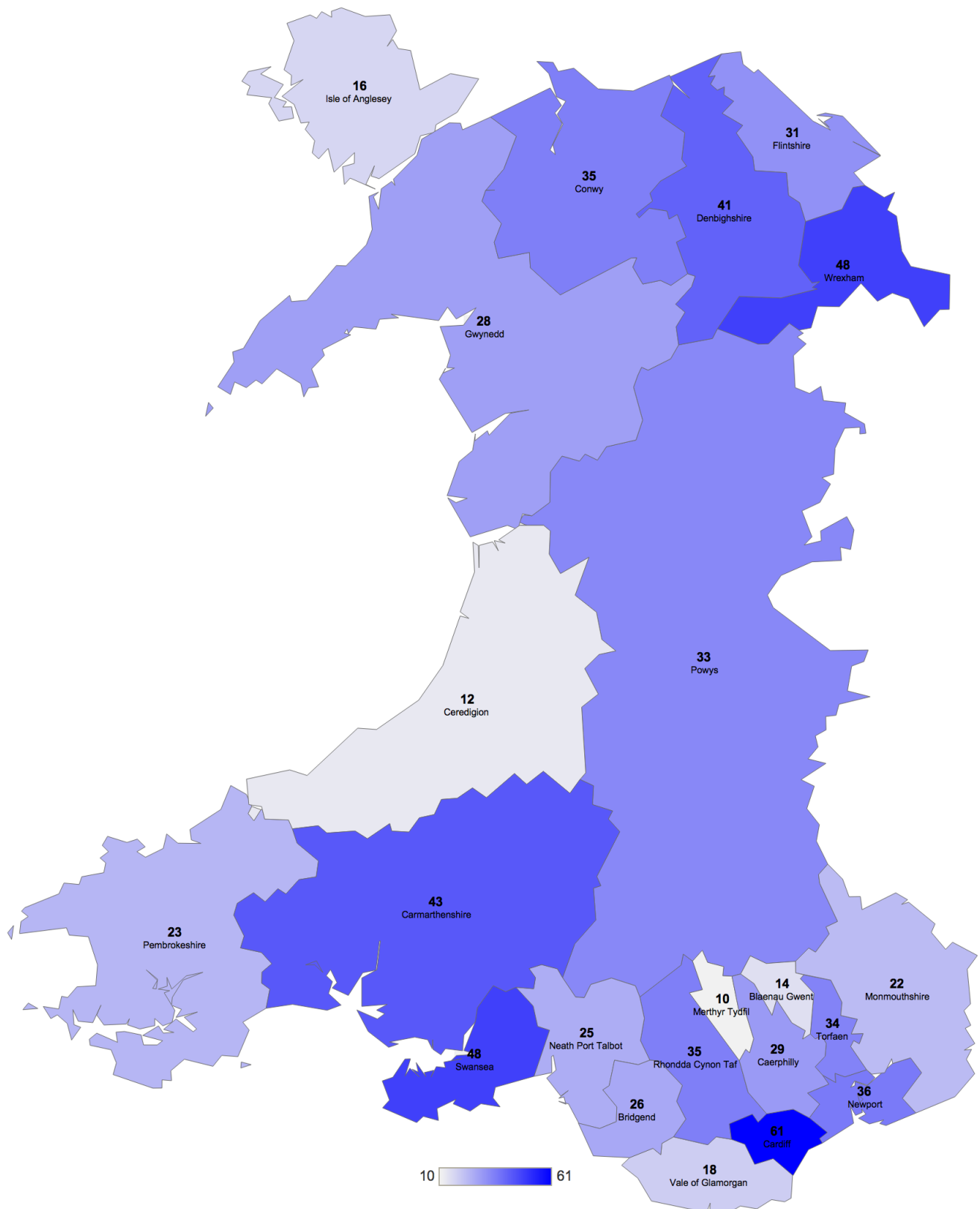
⁶¹ CSSIW Directory of Registered Children's Daycare Settings as of December 2016.

Full Day Care

Full day care settings account for approximately 17% of childcare providers in North and South West Wales and 15% of childcare providers in South East Wales.⁶² The spread of full day care settings tends to be more even than other setting types, with a less extreme range when comparing the number of children aged 0 to 4 with the number of full day care providers in each LA. Caerphilly, Cardiff and Rhondda Cynon Taf, which are all in South East Wales, have the lowest number of full day care settings as a proportion to the number of children aged 0 to 4 in each LA.

⁶² CSSIW Directory of Registered Children's Daycare Settings as of December 2016.

Map 6. Full day care providers by LA⁶³

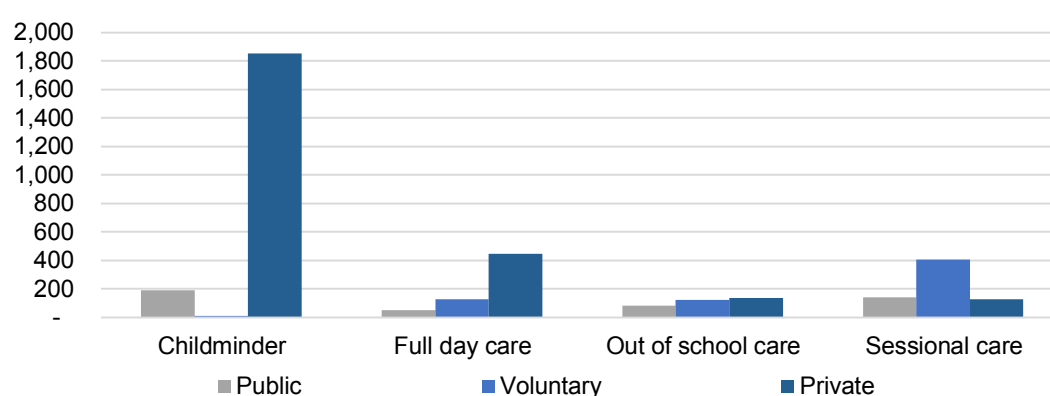


⁶³ CSSIW Directory of Registered Children's Daycare Settings as of December 2016.

Sector distribution

4.13 The Alma Economics Childcare Survey also examined the proportion of settings that are classified as public, private and voluntary providers. Public providers are fully owned by central or local government, private providers are self-employed individuals or commercial businesses, and voluntary providers are not-for-profit organisations. If respondents did not fit into these categories (e.g. if they were too small to qualify for charitable status), an “other” option was available – however the data collected for this category were too limited to provide any meaningful insights. Through extrapolating the survey responses⁶⁴, we estimate that 12% of childcare settings are public, 18% are voluntary and 65% are private. The majority of sessional care settings were voluntary, while full day care settings were more frequently private settings. The distribution between public, private and voluntary settings was more even for out of school settings.

Chart 7. Estimated number of public/ private/ voluntary childcare providers by setting type⁶⁵



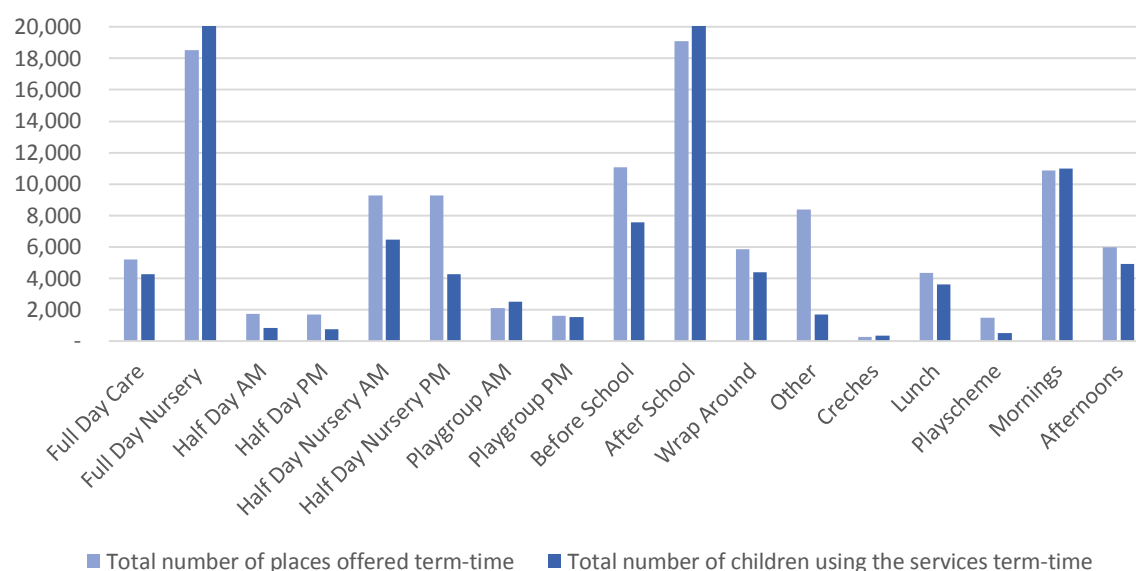
⁶⁴ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

⁶⁵ Alma Economics Childcare Survey 2017. This data has been adjusted to be representative of the childcare sector as a whole. We have excluded crèches and open access play settings due to small sample sizes. Sample size – 508. Figures are indicative only and should not be used to make comparisons over time.

Service provision and current capacity

- 4.14 The most comprehensive source we have on the service providers by childcare setting in Wales is CSSIW's SASS dataset. However, as previously highlighted, there are limitations to this dataset, including some inconsistencies in how data is reported and a response rate of 76%.
- 4.15 As outlined in Chart 8, across Wales the greatest demand tends to be for full day care and after-school care services. For both of these services, alongside morning sessions, the number of places used during term-time is greater than the number of places offered. This may indicate that some places are used flexibly (e.g. irregular provision) to meet demand.
- 4.16 In addition, significantly more half-day nursery (both morning and afternoon) and before school care places are offered than are actually used. A preference for sessional care for shorter sessions may contribute to this disparity.
- 4.17 The services provided by full day care providers tend to have more places offered than used. This is supported by responses to the Alma Economics Survey⁶⁶ which showed that 80% of full day care providers currently had capacity to provide additional places compared to 50% of childminders.

⁶⁶ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

Chart 8. Number of places offered and used during term-time by childcare settings⁶⁷

4.18 In our conversations with childcare providers it was observed that due to changing work patterns and family structure, there was growing demand for wrap around care, after school services and other flexible childcare provision. Also, several providers noted that parents with irregular working hours, such as shift workers, struggled to access appropriate provision. In the Family and Childcare Trust's annual childcare survey, it was reported that for the past two years no Welsh LAs had sufficient childcare for parents with atypical working hours (Harding et al., 2017; Rutter, 2016a). In contrast, the sufficiency rates for parents who work full-time has been gradually increasing, with approximately 41% of LAs reporting sufficient care in 2017.

⁶⁷ SASS 2016 - aggregated data. This data has *not* been adjusted for non-response, and hence is likely to be an underestimate. Childminders provide full day care, half day AM, half day PM, before school, after school, wrap around and other. Full day care settings provide full day nursery, after school, wrap around, before school, after school, playgroup AM, playgroup PM, crèche, lunch and other. Crèches provide full day care, crèche and other. Open access play settings provide before school, after school, play scheme and other. Out of school care settings provide before school, after school, play scheme and other. Sessional day cares provide wrap around, lunch, mornings, afternoons and other.

- 4.19 During the school holidays, around 47,580 places are offered across all services, with around 12,930 children actually using services according to SASS⁶⁸. Approximately 40% of respondents to the Alma Economics Childcare Survey were not open during the school holidays and an additional 7% offer less provision than term-time⁶⁹.
- 4.20 For sessional carers, a key reason for the different provision levels was the unavailability of premises – many settings are linked to schools which means they are unable to stay open during the holidays. Others noted that there is often lower demand during school holidays due to holiday clubs and preference for familial care. For small settings and childminders, the desire to take time off to be with their family was another key reason for closing during the school holidays⁷⁰.

Waiting lists

- 4.21 While waiting lists can provide a guide to understanding unmet demand in the childcare sector, it is a fairly narrow view that is likely to result in an underestimate. Waiting lists do not fully account for a variety of issues, such as families who may not get into their preferred nursery or have to travel long distances for appropriate provision. Moreover, data related to waiting lists should be treated cautiously as parents may add their names to a list but find provision elsewhere or they may add their names to multiple lists, creating an issue with double counting. It should be noted that in the following sections we present raw (i.e. not adjusted for non-response) data from SASS, which is likely to underestimate figures as only 75% of registered settings responded to the SASS survey.

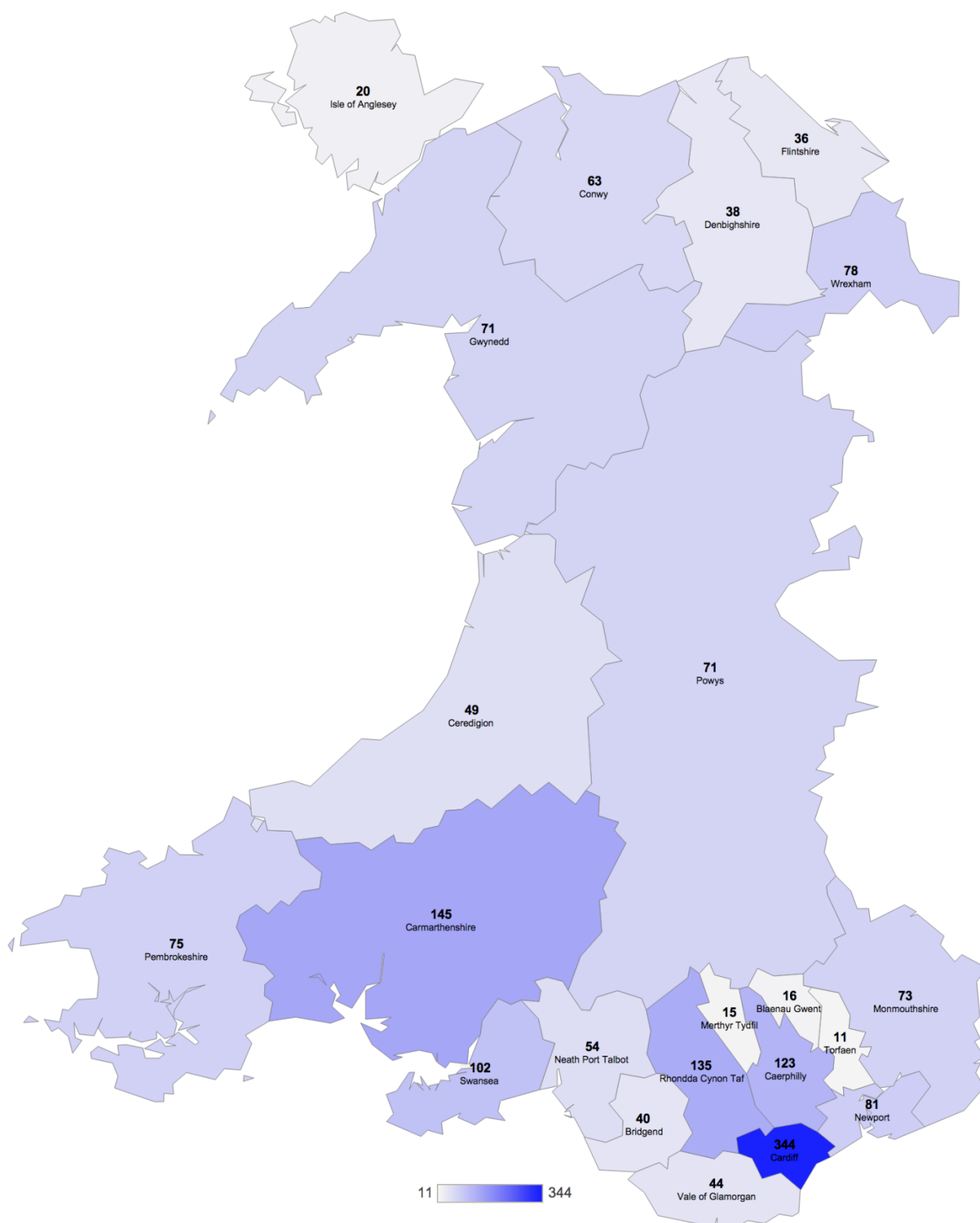
⁶⁸ SASS 2016 - aggregated data. This data has been adjusted to be representative of the sector as a whole.

⁶⁹ Alma Economics Childcare Survey 2017. Sample size - 513 respondents - figures are indicative only and should not be used to make comparisons over time.

⁷⁰ Alma Economics Childcare Survey 2017. Sample size - 513 respondents - figures are indicative only and should not be used to make comparisons over time.

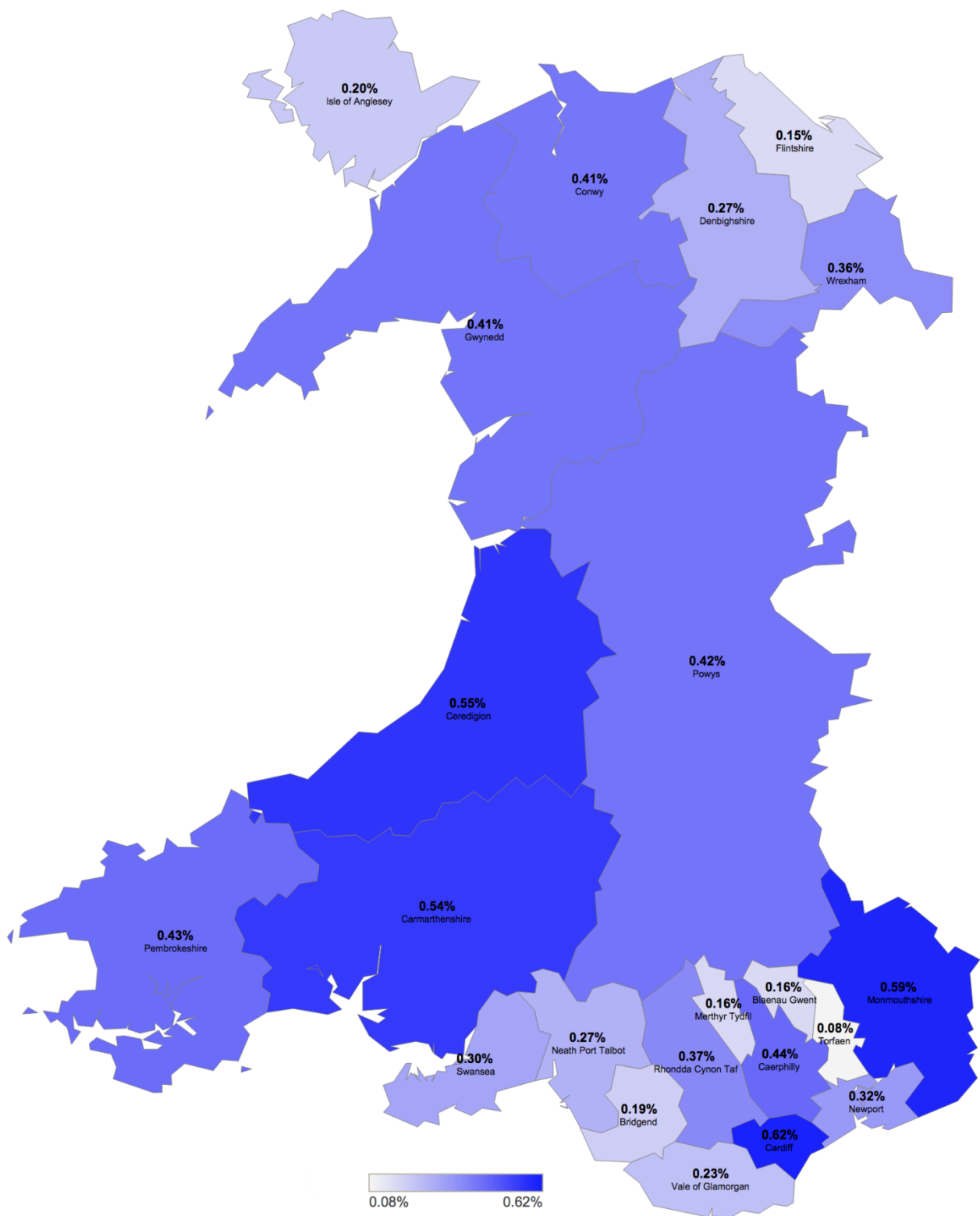
- 4.22 As shown in Map 7, Cardiff, Carmarthenshire and Rhondda Cynon Taf have the longest waiting lists for term-time provision. We also reviewed waiting lists for holiday provision, but these were markedly lower across all LAs - in fact, only 42 settings across Wales had a waiting list for holiday provision.
- 4.23 When these waiting lists are put in perspective by taking into account the number of children aged 0-12, it is clear that Cardiff, Monmouthshire, Ceredigion and Carmarthenshire have particularly long waiting lists for term-time. Cardiff aside, these LAs are generally classified as rural areas, which is consistent with our previous analysis. Fewer providers in rural locations, specifically childminders, is likely to contribute to longer waiting lists. For Cardiff, it is unclear what factors create long waiting lists but affordability of services in the LA has been highlighted as an issue in a recent sufficiency assessment (Family Information Service Cardiff, 2017).

Map 7. Number of children on waiting lists during term-time⁷¹



⁷¹ SASS 2016 - aggregated data. This data has not been adjusted and represents around 75% of providers in Wales.

Map 8. Waiting lists by the number of children during term-time aged 0-12⁷²



⁷² Population statistics from Office for National Statistics mid-year population estimates, 2015. Waiting list data from SASS 2016 - aggregated level data.

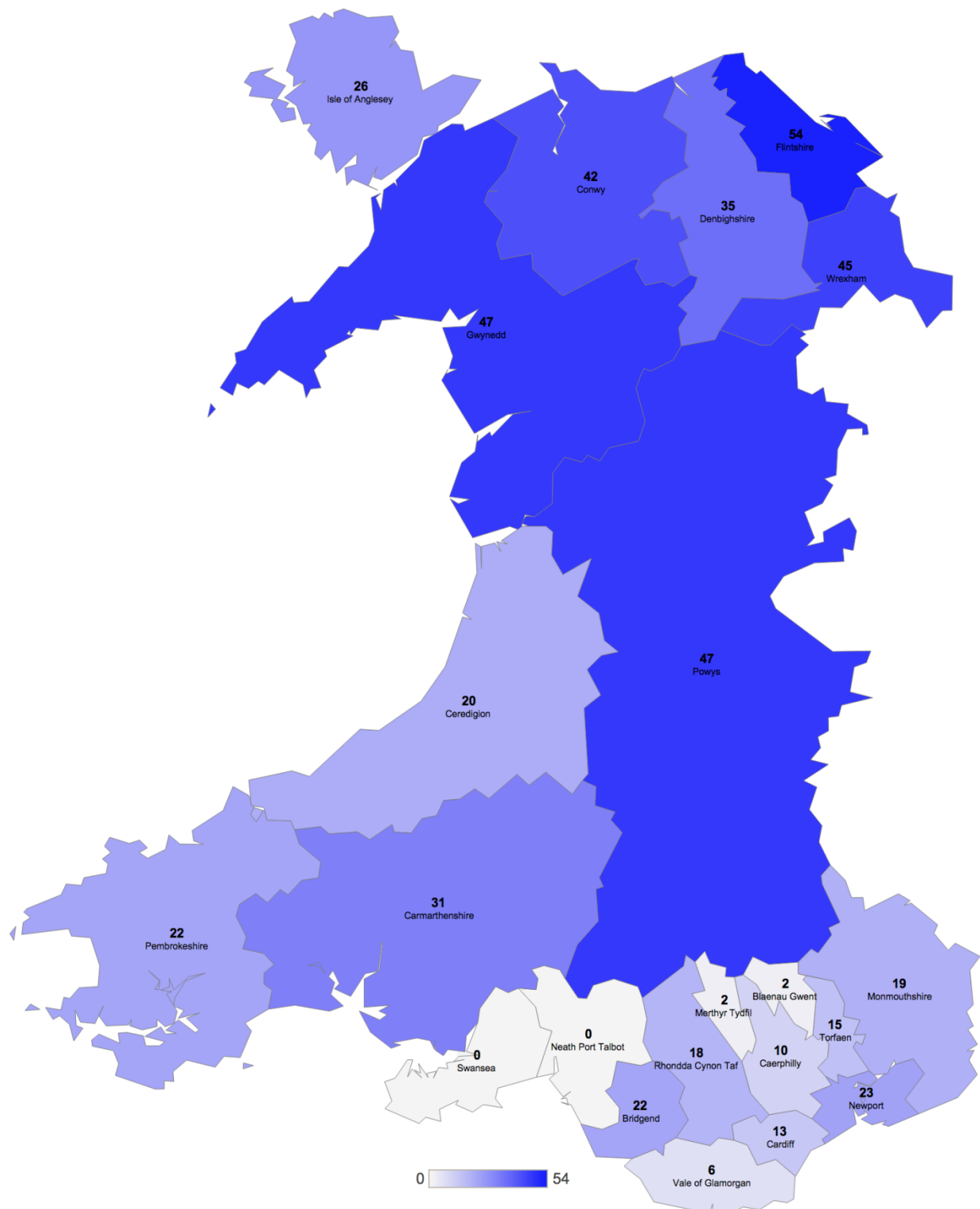
Funded places

- 4.24 As previously mentioned, there is extensive variation in how early years education and Flying Start provision are delivered across Wales. Some LAs primarily deliver the hours through maintained settings while others utilise non-maintained settings to deliver Foundation Phase and Flying Start.
- 4.25 Across Wales, approximately 500 childcare settings registered with CSSIW deliver early years education⁷³. According to the SASS dataset, in Swansea and Neath Port Talbot early years education is delivered only by maintained settings. North Wales and South West Wales are more likely to have non-maintained settings deliver early years education through sessional day care and full day care provision. The challenges associated with service provision in rural areas, including population dispersion, may make these regions more likely to utilise non-maintained settings for service provision. However, in interviews with childcare providers, some suggested that local context and approach to private sector development within LAs were also important factors.
- 4.26 It appears that in recent years early years education sufficiency in Wales has dropped slightly. The Childcare Survey 2017 by the Family and Childcare Trust noted that around 41% of LAs had sufficient childcare for early years education, a 10% drop from 2016 (Harding et al., 2017; Rutter, 2016a).⁷⁴

⁷³ SASS 2016 - aggregated data.

⁷⁴ The figures for 2017 are interim figures and should be treated with caution as some assessments had not been completed.

Map 9. Number of childcare providers (i.e. non-maintained settings) in receipt of early years funding⁷⁵

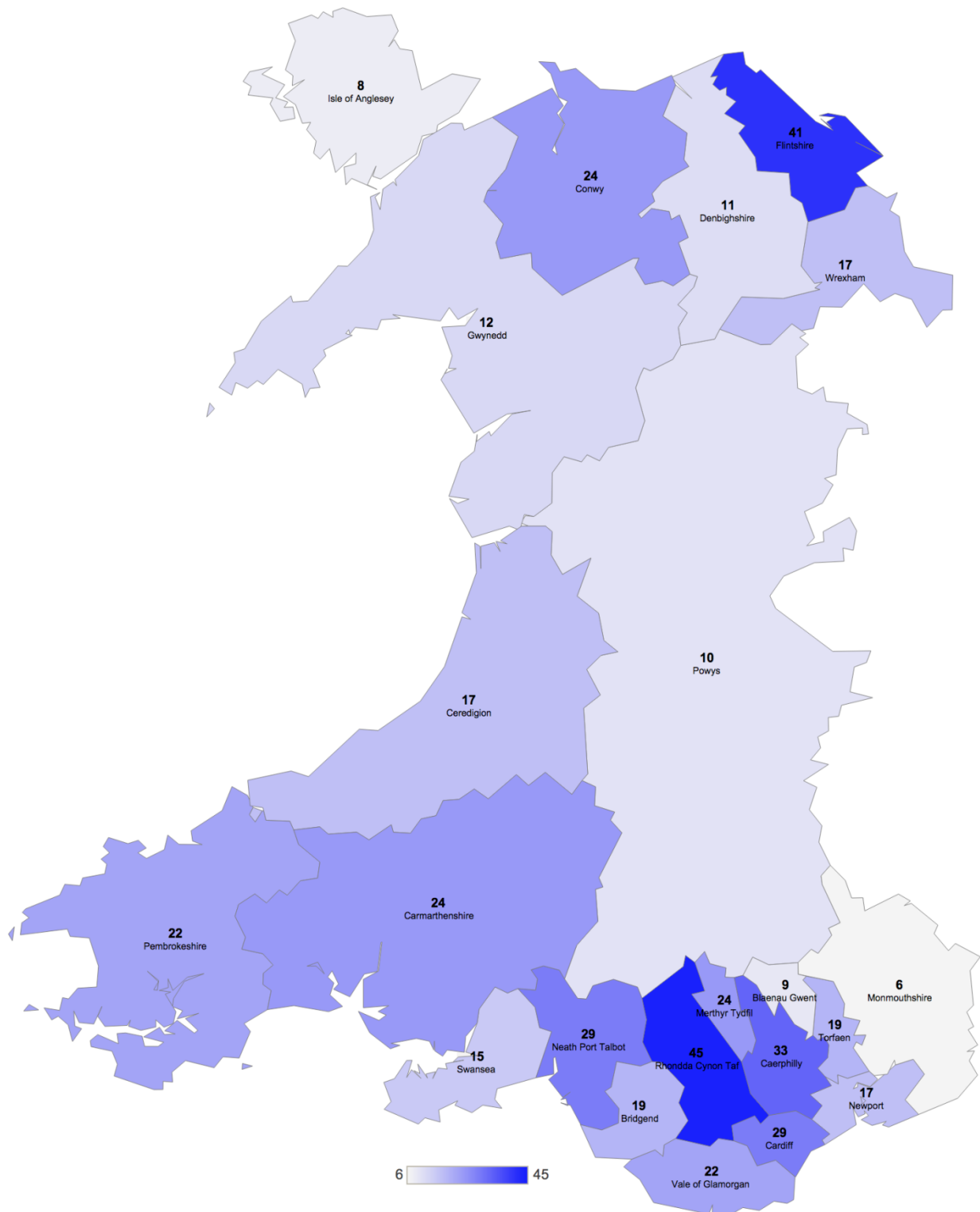


⁷⁵ SASS 2016 - aggregated data. This data is its reported format and represents 76% of childcare providers.

4.27 In terms of Flying Start, there are approximately 453 childcare providers in the CSSIW's SASS dataset which receive funding from the programme⁷⁶. Flying Start provision is targeted to the most deprived areas, so it is unsurprising that there is a higher concentration of providers in LAs such as Caerphilly and Rhondda Cynon Taf. In 2017, only 45% of LAs had sufficient provision for 2 year olds entitled to Flying Start (Harding et al., 2017).

⁷⁶ SASS 2016 – aggregated data.

Map 10. Number of childcare providers registered with CSSIW in receipt of Flying Start funding⁷⁷



⁷⁷ SASS 2016 – aggregated data.

Capacity for expansion and absorption of increased demand

- 4.28 Trying to determine the capacity of the childcare sector to expand in the future is challenging due to a variety of unknown factors including, but not limited to, services required, funding rates, availability of capital funding, staff sufficiency and area specific issues (e.g. new providers, LA funding models etc.).
- 4.29 Currently, childcare providers in Wales care for approximately 35,000 children aged 3 to 4 years old during term-time, with around 40% of this provision delivered by childminders, 30% by sessional day cares and 20% by full day cares⁷⁸. To understand which setting types would be more likely to absorb additional demand, we asked childcare providers in the Alma Economics Childcare Survey⁷⁹ how many additional places could be currently delivered for 3-4 year olds. Full day cares responded with the highest number of places on average, followed by sessional care settings. By extrapolating the averages by the number of childcare settings in Wales, we estimate that at the moment around 16,200 additional places could be delivered for 3-4 year olds using existing provision. However, this number does not provide a complete picture of capacity as we do not have enough detailed information on the types of services required by families (e.g. full day care, before school, after school, play scheme) and the location of these available places (e.g. they may be in areas with low demand).

⁷⁸ SASS 2016 – individual level data. Adjusted to be representative of the sector as a whole.

⁷⁹ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

Table 15. Places currently available for 3-4 year olds⁸⁰

Provider type	Average number of places available	Estimated number of places
Childminder	1.04	2,200
Full Day Care	9.78	6,500
Out of School Care	6.63	2,700
Sessional Care	6.12	4,800
Total		16,200

4.30 Approximately half of the respondents to the Alma Economics Childcare Survey said they would be unwilling or unable to expand their services if there was an increase in demand for 3-4 year olds⁸¹. In addition, around half of respondents reported that the costs of seeking bigger premises would prevent their setting from offering new places for 3-4 year olds. As many settings operate on low profit margins and are sensitive to change, the expansion of premises to accommodate additional children is risky, even if the demand is there (Butler and Rutter, 2016).

4.31 Focussing our attention to survey respondents who would be willing and able to expand their provision in future, full day care settings and sessional care settings are more likely to deliver new places. Childminders have far more limited capacity for expansion, likely due to their model which is based on serving a small client base and operating out of domestic premises. We estimate that current providers could deliver up to 17,800 new places for 3-4 year olds, but again this figure has a range of limitations as previously highlighted and should be interpreted accordingly.

⁸⁰ Alma Economics Childcare Survey 2017. Sample size- 491 - figures are indicative only and should not be used to make comparisons over time.

⁸¹ Alma Economics Childcare Survey 2017. Sample size- 450 - figures are indicative only and should not be used to make comparisons over time.

Table 16. Future places for 3-4 year olds given time to expand ⁸²

Provider type	Average number of places	Estimated number of places
Childminder	0.7	1,400
Full Day Care	11.4	7,600
Out of School Care	8.0	3,300
Sessional Care	7.0	5,500
Total		17,800

Challenges and opportunities for the sector

4.32 This section provides a brief overview of some of the emerging challenges and opportunities that are likely to affect the childcare sector in the coming years.

National Living Wage (NLW)

4.33 The introduction of the National Living Wage is expected to have a pronounced impact on the childcare sector in Wales. The current National Living Wage, as of April 2017, is £7.50 for all individuals aged 25 and over (with plans to increase the rate to around £9 an hour by 2020). As noted by the Low Pay Commission (LPC) (2016), the NLW is a significant change for the labour market, businesses and employees due to the effect it will have on salary, prices and pay differentials across Wales. In particular, the LPC notes that in sectors with compressed pay like childcare, increases in the wage floor can have a ripple effect on workers paid above the NLW.

4.34 In the Alma Economics Childcare Survey, approximately 40% of respondents strongly agreed that the NLW would substantially

⁸² Alma Economics Childcare Survey 2017. Sample size – 306 - figures are indicative only and should not be used to make comparisons over time.

increase business costs⁸³. It has been suggested that increasing costs may result in the employment of younger and potentially less qualified staff (NDNA, 2017).

Welfare and tax reforms

- 4.35 Reforms initiated by the central government may also impact the provision of formal childcare in Wales. The government is merging six means-tested benefits and tax credits into a single Universal Credit and has also introduced a new Tax-Free Childcare scheme in April 2017.
- 4.36 Under Working Tax Credit, working parents with low incomes can receive up to 70% of their childcare costs with a ceiling of £175 per week for one child (i.e. a parent could get up to £122.50 per week for childcare) and £300 per week for 2 or more children (i.e. a parent could get up to £210 per week for childcare). To claim Working Tax Credit parents must use registered childcare and must work at least 16 hours per week.
- 4.37 With the introduction of the Universal Credit, working families can claim up to 85% of their monthly childcare costs. The ceiling for the Universal Credit childcare element is £760 a month for one child (i.e. a parent could get up to £646) and £1304 a month for 2 or more children (i.e. a parent could get up to £1108 a month). While parents must work to be eligible, there is no limit on the number of working hours (as with Working Tax Credit).
- 4.38 The government has also recently introduced the Tax-free Childcare scheme. Eligible families will have 20% of their yearly childcare costs paid by the government, up to a maximum of £2,000 per year per child through an online account. The scheme will be available for children up to the age of 12, or 17 for children with additional needs.

⁸³ Alma Economics Childcare Survey 2017. Based on a sample of 251 responses to the statement "The National Living Wage will substantially increase business costs" - figures are indicative only and should not be used to make comparisons over time.

To qualify parents must earn above £120 a week (if they are over 21) and below £100,000 a year each. It is also only available to parents who do not get support from other childcare voucher or salary sacrifice schemes.

- 4.39 In addition to the above changes, childcare vouchers provided by employers are to be phased out. Parents will be able to enter the current childcare voucher scheme until April 2018 and utilise the scheme as normal but new joiners will not be accepted after this date.

Brexit

- 4.40 The impact of the UK's exit from the European Union on the childcare sector in Wales is challenging to predict at this stage.
- 4.41 That said, early analysis has suggested that Brexit is likely to have some effect on the workforce. The Resolution Foundation has projected that in light of Brexit, pay growth is likely to slow and has estimated that the NLW will reach £8.60 by 2020, rather than the projected £9 in the 2016 budget (Clarke and D'Arcy, 2016). In addition, issues around restriction of movement for EU nationals may create recruitment challenges in the future. For example, around 6% of nursery workers across the UK are EU nationals⁸⁴.
- 4.42 Another key area is the potential for reduced funding for employment, education and research. The European Social Fund (ESF), a financial instrument of the European Union, supports various programmes related to the early years and childcare sector. For example, the PaCE programme, which is jointly funded by the ESF and the Welsh Government, covers the cost of childcare while parents undertake training, work experience or skills development. In addition, the ESF jointly funds Progress for Success, a £10.9 million

⁸⁴ Office of National Statistics – Annual Population Survey, January to December 2015.

programme which provides training to upskill early years, childcare and play practitioners.

- 4.43 NDNA has also noted that Brexit may provide an opportunity for nurseries to advocate for a change in VAT status (Parkes, 2016). Currently, registered childcare settings are exempt from VAT, which means they cannot charge or claim back VAT on any goods or services.

Welsh language

- 4.44 The expansion of Welsh language use is a key priority for the Welsh Government. In Taking Wales Forward, a goal has been set to have one million people speaking Welsh by 2050. There is a growing Welsh-medium early years sector which includes Welsh-medium day nurseries, after school care and Cylchoedd Meithrin. In the Alma Economics Childcare Survey, approximately 33% of the responding settings were Welsh-medium, 7% combined Welsh and English-medium, 46% English-medium with bilingual elements and 13% English-medium. In addition, approximately 56% of respondents expected to increase the delivery of Welsh language provision in the coming years.⁸⁵ Sessional day care and full day care settings were more likely to feel strongly about the expansion of Welsh language provision. These trends are likely to result in an increase the number of Welsh-medium and bilingual settings in the coming years.

Additional Learning Needs (ALN)

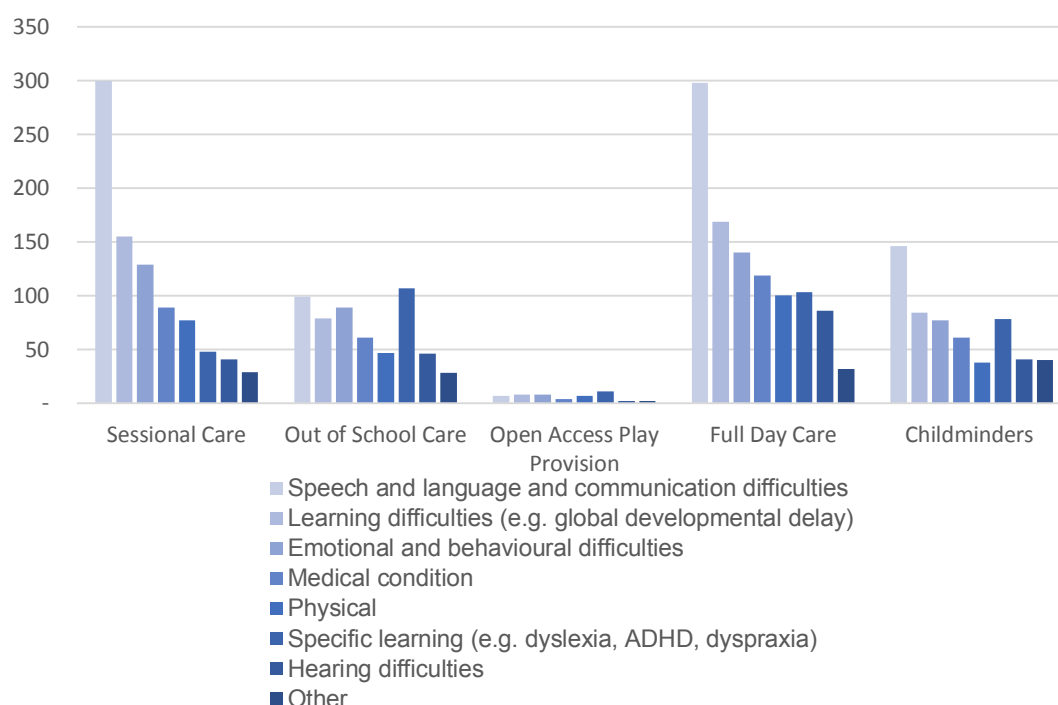
- 4.45 The introduction of the Additional Learning Needs and Education Tribunal (Wales) Bill towards the end of 2016 is indicative of the growing policy commitment to support children with additional learning needs. The Bill sets out proposals for a new legislative system to support children and young people aged 0-25 with ALN. A

⁸⁵ Alma Economics Childcare Survey 2017. Sample size - 257 - figures are indicative only and should not be used to make comparisons over time.

child is deemed to have additional learning needs if they have a significantly greater difficulty in learning than the majority of their age group, or if they have a disability that prevents or hinders them from using the education or training generally on offer. The Welsh Government has noted that the new legislation and statutory guidance is part of a wider programme which is focused on skills development of the workforce to respond to ALN, as well as access to specialist support, information and advice.

4.46 It was reported in the 2017 Childcare Survey by the Family and Childcare Trust that approximately 50% of Welsh LAs did not have sufficient care for disabled children (Harding et al., 2017).

Chart 9. Type of Additional Learning Needs accommodated by childcare provider type⁸⁶



⁸⁶ SASS 2016 - aggregated data. This data represents the 76% of childcare providers who completed the SASS and is likely to be an underestimate. We have not adjusted the numbers as it would be imprecise at such a detailed level.

- 4.47 As shown by the SASS data, approximately 45% of full day care providers and 38% of sessional carers currently accommodate speech and language additional needs. The proportion of childminders that cater for additional needs is far lower, with only 7% accommodating speech and language difficulties. This is consistent with data collected in our survey which found that 84% of the childminders who responded did not care for children with additional needs⁸⁷. Full day care settings and sessional day care settings care for a higher proportion of ALN children on average.
- 4.48 While providers acknowledged that there were additional costs related to caring for children with ALN, only 1% of survey respondents charged a different hourly rate⁸⁸. Around 40% of providers who offered ALN provision were able to access external financial support to deliver support for children with ALN, but only 20% of respondents felt that this was sufficient to meet the additional costs⁸⁹.
- 4.49 In our conversations with childcare providers, a range of issues regarding children with ALN were raised. Providers noted that the two main costs associated with supporting children with ALN were training costs and staffing costs. One-on-one time was often required between children with ALN and staff in introductory stages to ensure the appropriate induction and provision of support. Childminders interviewed highlighted particular challenges associated with caring for children with ALN in a small setting, such as factoring in the profile of other children in their care and devoting additional time as a sole carer. Providers from a range of setting types perceived that there was insufficient practical training on

⁸⁷ Alma Economics Childcare Survey 2017. Sample size – 251 - figures are indicative only and should not be used to make comparisons over time.

⁸⁸ Alma Economics Childcare Survey 2017. Sample size – 260 - figures are indicative only and should not be used to make comparisons over time.

⁸⁹ Alma Economics Childcare Survey 2017. Sample size – 260 - figures are indicative only and should not be used to make comparisons over time.

specific learning needs (e.g. dyspraxia, cerebral palsy) and found that many of the courses currently available were too general or otherwise prohibitively priced. Further research is required to determine the scale of these issues and specific training gaps by area and setting type. Approximately 40% of childminders who responded to the survey felt they had the right skills and ability to care for children with ALN, compared to 70% of sessional care providers and 60% of full day care providers⁹⁰.

- 4.50 In our interviews, childcare providers who received funding from Flying Start particularly highlighted the value of the programme in assisting childcare providers to manage ALN. In particular, providers valued the access to specialist advice, training and referral mechanisms provided through the programme. Some of the providers we spoke to struggled to get the same level of support for children outside the Flying Start programme. In particular, escalating issues and obtaining required assessments was far more challenging for children outside Flying Start due to privacy issues. Many providers noted the importance of early intervention and expressed a desire for more holistic provision for young children.

Regulations

- 4.51 Childcare providers in Wales must comply with a range of regulations alongside the National Minimum Standards (NMS) for Regulated Childcare⁹¹. In addition to these regulations, childcare providers delivering early education must comply with the

⁹⁰ Alma Economics Childcare Survey 2017. Sample size – 257 - figures are indicative only and should not be used to make comparisons over time.

⁹¹ The Regulation of Child Minding and Day Care (Wales) Order 2016; The Child Minding and Day Care (Wales) Regulations 2010; The Child Minding and Day Care (Inspection and Information for Local Authorities) (Wales) Regulations 2010; The Child Minding and Day Care Exceptions (Wales) Order 2010; The Children and Families (Wales) Measure 2010; (Commencement No.2, Saving and Transitional Provisions) (Amendment) and (Consequential Amendment) Order 2011; Children and Families (Wales) Measure 2010; The Child Minding and Day Care (Disqualification) (Wales) Regulations 2010.

Foundation Phase Framework, and those delivering Flying Start must meet the specified standards of the Programme.

4.52 While it is acknowledged that regulations are integral to ensuring high quality provision, close to half of survey respondents believed that the cost of complying with regulations was too high⁹². In particular, child to staff ratios were seen as the costliest expense followed by environment and space regulations. As previously discussed, in particular, environment and space regulations make some providers hesitant to expand even if demand is increased.

4.53 Isolating the cost of regulations is a challenging task, as the costs are usually integrated into other activities and not considered or recorded separately by providers. To fully understand the implementation cost of regulations and the impact it may have on the decision-making processes of childcare providers, more detailed research is required.

Table 17. Survey responses on cost of regulations⁹³

	High Cost	Medium Cost	Low Cost	N/A	Do not know
Child to staff ratios	51%	22%	3%	21%	3%
Environment and space regulations	24%	41%	18%	9%	8%
Administrative Regulations	22%	42%	24%	7%	6%
Catering	16%	43%	25%	12%	4%
Minimum Staff qualifications	14%	30%	22%	26%	7%
Healthcare and hygiene	14%	47%	30%	4%	5%
Safeguarding regulations	13%	36%	41%	5%	5%

⁹² Alma Economics Childcare Survey 2017. Sample size – 255 - figures are indicative only and should not be used to make comparisons over time.

⁹³ Alma Economics Childcare Survey 2017. Sample size – 244 - figures are indicative only and should not be used to make comparisons over time.

- 4.1 A few childminders noted in our interviews that they felt the paperwork involved to meet the NMS was extensive. The time commitment involved in filling out paperwork is particularly challenging for providers working alone and often requires overtime hours to manage. It was suggested that assistance to develop automated systems to manage ongoing paperwork might reduce this time burden for childminders in particular.
- 4.2 Another issue raised in our interviews with providers was the lack of clarity regarding standards. This again was a more pronounced issue for childminders who felt that standards could vary with inspectors. The day care and sessional care providers we spoke to believed that consistency issues have improved in recent years, with CSSIW inspectors more willing to understand the issues encountered by the settings.
- 4.3 Providers were particularly positive about recent moves to harmonise Estyn and CSSIW inspection frameworks and believe it was a step in the right direction. For these providers, managing occasionally conflicting advice and visits from the two inspection bodies was particularly challenging and increased administrative costs.

The Childcare Offer for Wales

- 4.4 The primary driver of change in the childcare sector in the coming years is likely to be the Childcare Offer for Wales, which will commence a phased roll-out in September 2017. Currently, all 3-4 years olds are entitled to a minimum of 10 hours per week during term time of early years education. The Childcare Offer for Wales will combine this entitlement with an additional 20 hours of childcare in term time for households where both parents are working a minimum of 16 hours per week. In school holidays, these families will receive 30 hours of childcare for 9 weeks. As the offer is still

being formulated, there is a great deal of uncertainty regarding its implementation and impact.

- 4.5 Almost 40% of respondents to the Alma Economics Childcare Survey said they did not know how the offer would impact their business⁹⁴. Approximately a third of the sessional carers responding to the survey felt that the offer has the potential to provide an increase to their business, with 20% believing it would be a substantial increase. Childminders were far more likely to say that the offer would not impact their business. In fact, around 10% of responding childminders believed the offer would decrease their business, for reasons such as reduced demand for paid services due to the increase of funded places and the potential for low funding rates.
- 4.6 Many childcare providers we spoke to and received comments from were positive, if cautious, regarding the potential opportunities that the offer may bring. Some felt that the policy was a step in the right direction to create a childcare sector that focuses on parental choice and encourages the development of the private sector.
- 4.7 In particular, it was hoped that the offer would encourage more LAs to deliver early years education in non-maintained settings. Several full day care settings felt that the line between childcare and early years education was blurred and often their provision is in line with Foundation Phase whether they are an officially registered provider or not. However, some LAs limit the delivery of early years education funded places to maintained settings. Some providers interviewed and providing additional comments through the survey expressed frustration with the lack of consultation with the private sector in this respect, particularly in regions where provision is primarily delivered by the maintained sector. With the introduction of the additional hours, some non-maintained settings felt it would be in the best

⁹⁴ Alma Economics Childcare Survey 2017. Sample size – 262 - figures are indicative only and should not be used to make comparisons over time.

interests of the child to encourage the provision of funded early years education and childcare in a single setting, to avoid moving children around and causing disruption. For settings in rural areas, this is particularly an issue due to the pick-up and drop-off distances, which increases transport and staff costs.

- 4.8 Half of the respondents believed that the Childcare Offer for Wales could provide the opportunity to grow business.⁹⁵ For example, one provider from an area deemed to have low childcare sufficiency rates noted that despite these assessments, it was still difficult to fill places. A range of factors appeared to influence the use of childcare, including employment rates, wages and the price of childcare (as discussed in Annex 2). It is hoped that the provision of free hours would allow for current vacancies to be filled, increasing the cost efficiency of providers.
- 4.9 The key concern regarding the offer was the rate for the additional hours. Over 60% of providers responding to the survey were concerned about the funding rate⁹⁶. If the places are funded at a rate that is too low, providers will struggle to maintain sustainability. Particularly if the rate is lower than current charged rates, providers will end up having the same fixed costs but lower income. This is also a wider issue as places would be lost to settings that delivered funded places.
- 4.10 While a few of the providers interviewed noted they were reluctant to charge additional fees for extras, such as meals and trips, they also suggested that it would be considered if the funding rates were too low. Several providers we received comments from noted that they would not sign up to deliver the funded hours if there was no clear uprating mechanism. There was a concern that the funding rate

⁹⁵ Alma Economics Childcare Survey 2017, sample size 149 - figures are indicative only and should not be used to make comparisons over time.

⁹⁶ Alma Economics Childcare Survey 2017, sample size 243 - figures are indicative only and should not be used to make comparisons over time.

would stagnate and with rising costs, it would make it difficult for providers to maintain sustainability and profitability.

- 4.11 Another key concern is whether the offer would use current providers or new settings. Part of the concern in this respect derived from the implementation of Flying Start. Some providers in the Flying start areas noted that the opening of new Flying Start specific providers had reduced demand for their services. Many private and voluntary providers who provide comments noted that if current provision is not utilised then it will undermine the sector as a whole.
- 4.12 Balancing provision of funded places for 2 year olds and 3-4 year olds is another emerging challenge. A few providers we spoke to noted that they were waiting to see whether it would be more profitable to focus on delivering Flying Start or early years education places. There was concern in general that the expansion of provision for 3-4 year olds would come at a cost to the Flying Start Programme, which was generally positively regarded by providers we spoke to.
- 4.13 There were a range of concerns regarding how the offer would be implemented. Providers cited current problems with accessing funding through childcare vouchers, Flying Start, LA funded places etc. Settings we spoke to would prefer that payments came directly to providers rather than through parents to minimise delays. While larger settings with diverse funding sources could generally manage being paid in arrears, many smaller settings or settings with less diverse funding sources struggle with cash flow problems. Inconsistent payment processing times and significant lags between costs and reimbursement affect the capacity for providers to plan for the future. A childminder we spoke to who was paid upfront by Flying Start said it had a positive impact on their business.

5. Costs, Revenues and Efficiency

- 5.1 The Alma Economics Childcare Survey did not collect sufficient quality data on crèches and open access play providers so this section focusses on costs encountered by childminders, out of school care, full day care and sessional care providers in Wales. As crèches and open access play providers represent approximately 1.5% of the childcare sector, we do not consider the exclusion of these providers to substantially affect our analysis. It should also be noted that we received limited responses from out of school care providers to the cost section of the survey, and hence findings in this area should be interpreted cautiously.
- 5.2 The source for all tables and figures in this section is the Alma Economics Childcare Survey 2017 unless otherwise stated. For a description of this dataset and the estimation process we applied to arrive at sector-level aggregate figures please see the methodology section.

Total overall costs

- 5.3 From survey⁹⁷ responses, we estimate that in 2015-2016, approximately £190 million was spent on operating costs (including staffing costs, utilities, rent, cleaning, training, catering and equipment) by the childcare sector in Wales. Full day care providers accounted for around two thirds of this total.

⁹⁷ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

Table 18. Total costs by setting type (sector total) - 2015-2016⁹⁸

Setting Type	Cost Total
Childminders	£15,000,000
Full Day Care	£126,000,000
Out of School Care	£13,000,000
Sessional Care	£33,000,000
Total	£187,000,000

5.4 There is extensive variation in annual costs for the childcare providers who responded to the survey⁹⁹. On average, full day care providers reported the highest total costs, followed by sessional day care providers. It is particularly interesting that the range for full day care providers respondents is very large – towards the lower end (25th percentile) costs are at around £50,000, while towards the upper end (75th percentile) they are over £230,000. This provides an insight into the variation between providers and difficulties that may be encountered in drawing conclusions on such a diverse cohort. Childminders reported the lowest average costs for a variety of reasons, including the scale of their services and the difference in the operational structure compared to larger businesses. It is important to note that childminders are also less likely to count their own profit or “salary” as part of their costs so the overall figures may appear lower than in reality. The range for childminders is less pronounced with the median provider reporting incurring around £6,000 in costs, which is close to the average (£7,000). It is also telling that the median for sessional care providers is fairly low compared to the average, so consequently it is likely that there are

⁹⁸ Alma Economics Childcare Survey 2016. Sample size – 151. Figures are indicative only and should not be used to make comparisons over time.

⁹⁹ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

several providers with significantly higher costs that skew the averages.

Table 19. Costs by setting type - April 2015 – March 2016

Setting Type	Average	Median	25 th percentile	75 th percentile
Childminder	£7,096	£5,889	£3,000	£8,335
Full Day Care	£187,937	£135,741	£51,000	£234,000
Out of School Care	£32,039	£15,550	£14,160	£49,800
Sessional Care	£42,378	£23,775	£15,960	£50,000

Table 20. Summary of average costs by setting type - April 2015 – March 2016

Cost Category	Childminder	Full Day Care	Out of School Care	Sessional Care
Staff costs	£1,898	£132,319	£20,854	£28,448
Staff training costs to meet National Minimum Standards	£50	£1,103	£265	£201
Staff training costs for professional development	£48	£1,149	£150	£251
Meals and catering costs	£1,567	£6,907	£1,773	£600
Rent/Premises	£644	£16,459	£3,061	£2,434
Cleaning	£411	£3,250	£568	£597
Equipment and materials	£1,138	£5,517	£1,666	£1,453
Utilities	£475	£4,958	£2,000	£6,321
Insurance	£124	£1,709	£396	£365
Other ¹⁰⁰	£741	£14,567	£1,305	£1,709
Total	£7,096	£187,937	£32,039	£42,378

¹⁰⁰ The specific other expenses have not been disaggregated but transport costs are expected to be an important component cost.

Table 21. Summary of median costs by setting type - April 2015 – March 2016

Cost Category	Childminder	Full Day Care	Out of School Care	Sessional Care
Staff costs	£0	£115,000	£17,550	£18,814
Staff training costs to meet National Minimum Standards	£10	£689	£200	£104
Staff training costs for professional development	£0	£575	£150	£150
Meals and catering costs	£1,000	£6,000	£750	£400
Rent/Premises	£0	£9,043	£2,600	£1,586
Cleaning	£100	£2,500	£200	£300
Equipment and materials	£623	£3,482	£750	£1,000
Utilities	£397	£3,600	£2,000	£1,040
Insurance	£87	£1,105	£314	£243
Other	£0	£12,300	£1,075	£700
Total	£5,889	£135,741	£15,550	£23,775

Staff costs

5.5 The survey¹⁰¹ shows that staff costs tend to be the most prominent expense for childcare settings. Staff costs account for approximately 70% of average total costs for full day care and sessional day care providers. The median staff costs for full day care providers are £115,000, with the average somewhat higher at just over £130,000. There is significant variation between providers – for example, the 25th percentile full day care provider reported staff costs at just over

¹⁰¹ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

£40,000, while the 75th percentile provider reported facing staffing costs just under £190,000.

- 5.6 It is important to note that the majority of childminders do not employ staff, and hence wage costs for the median childminder are zero. According to the SASS data, around 10% of childminders employ assistants or helpers, although in our analysis the 75th percentile provider did report some (very low) staffing costs – and hence it appears that the proportion of childminders that use staff – even if on a temporary/infrequent basis – is somewhat higher.

Table 22. Staff costs by setting type - April 2015 – March 2016¹⁰²

Provider Type	Average	Median	25 TH percentile	75 th percentile
Childminder	£1,898	£0	£0	£100
Full Day Care	£132,319	£115,000	£42,321	£188,000
Out of School Care	£20,854	£17,550	£12,000	£31,366
Sessional Care	£28,448	£18,814	£12,200	£38,500

- 5.7 The introduction of the NLW is expected to have a pronounced impact on the childcare workforce in Wales. The NDNA (2017) estimates that the NLW has increased payroll costs by an average of 8% from 2016 to 2017 in full day care settings in Wales. The pension auto-enrolment scheme is another potential new cost for small businesses in Wales. Under a law introduced in 2012, all employers are required to offer a workplace pension scheme. The majority of small businesses (with 30 or fewer employees) have had staging dates for the scheme between 2016 and 2017. The minimum total contribution to the scheme by employers is 1% of qualifying earnings (earnings before income tax and National Insurance contributions

¹⁰² Alma Economics Childcare Survey 2016. Sample size – 164 - figures are indicative only and should not be used to make comparisons over time.

are deducted between a lower and upper earnings limit). Furthermore, childcare providers have noted increases in administrative costs in the past year as they set up the scheme.

Premises-related costs

- 5.8 Rent and premises costs were also reported in the Alma Economics Childcare Survey¹⁰³ to be a significant expense for Welsh childcare settings, on average accounting for around 10% of all costs for the full day care and out of school care settings, and 5% for sessional care providers. Many sessional care providers noted that sharing common spaces, while limiting their capacity to expand, allowed for reduced rent and premises related costs. As day care settings are more frequently located on standalone or non-shared premises, the average costs were higher.
- 5.9 The majority of childminders responding to the Alma Economics Childcare Survey stated they had no costs relating to rent – possibly because in many cases they operate out of properties they own rather than rent, or because they think of rent as a personal expense, rather than business expense. Hence, as is the case with staffing costs, the reported figures for childminders understate the true resource cost of delivering services.

¹⁰³ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

Table 23. Rent/premises costs by setting type - April 2015 – March 2016¹⁰⁴

Setting Type	Average	Median	25 th percentile	75 th percentile
Childminder	£644	£0	£0	£0
Full Day Care	£16,459	£9,043	£5,500	£19,000
Out of School Care	£3,061	£2,600	£1,500	£4,700
Sessional Care	£2,434	£1,586	£1,000	£3,000

5.10 Another key issue that was raised through our conversations with providers was business rates. Business rates are taxes that business owners pay on their premises. Business rates in Wales were revaluated in April 2017 and new rates have been introduced. While the Welsh Government has relief packages for small business (registered childcare premises have 50% relief if their rateable value is under £12,000), larger businesses have flagged increasing rates as a concern. In a survey conducted by the NDNA in Wales (2017), approximately 23% of full-day care settings reported increases in business rates, with the average business rate bill reaching £9,534 on an average rateable value of £19,441. Some private providers felt that business rates prevented them from providing competitive services. It is worth noting that it is unclear whether business rates have been classified as “other expenses” or combined with rent and premises costs in survey responses.

Meals and catering costs

5.11 The Alma Economics Childcare Survey¹⁰⁵ estimates indicate that meals and catering costs are a substantial expense for settings

¹⁰⁴ Alma Economics Childcare Survey 2016. Sample size – 140. Figures are indicative only and should not be used to make comparisons over time.

¹⁰⁵ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

offering full day care provision, such as childminders and full day care services. As sessional care providers offer shorter sessions which do not require substantial meals, the costs are comparatively low. In our conversations with providers, it was noted that aside from the cost, the level of effort required to prepare nutritional meals was particularly demanding for smaller settings, such as childminders.

Table 24. Meal and catering costs by setting type¹⁰⁶

	Average	Median	25 th percentile	75 th percentile
Childminder	£1,567	£1,000	£250	£2,572
Full Day Care	£6,907	£6,000	£2,300	£10,147
Out of School Care	£1,773	£750	£700	£2,000
Sessional Care	£600	£400	£205	£616

5.12 While some providers currently charge additional fees to cover the cost of meals, this is not the norm. Based on the Alma Economics Childcare Survey¹⁰⁷, we estimate that only 1 in 7 providers charge for meals on top of their standard rate. Furthermore, sessional care providers and childminders are more likely to charge for meals separately compared to full day care and out of school care settings. This is likely due to the perception that full day care services include meals while meals for shorter care sessions meals are optional. In conversations with providers, many noted that charging for meals separately introduced administrative complexity and was perceived poorly by parents.

¹⁰⁶ Alma Economics Childcare Survey 2016. Sample size – 148. Figures are indicative only and should not be used to make comparisons over time.

¹⁰⁷ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

Training

5.13 Staff training costs account for a very small proportion of total costs for childcare providers according to the responses to the survey. It is also worth noting that while we asked respondents to report on staff training for professional development and training to meet national minimum standards separately, there is likely to be some overlap between the cost categories.

Table 25. Staff training costs¹⁰⁸

	<i>Staff training costs to meet National Minimum Standards</i>		<i>Staff training costs for professional development</i>	
	Average	Median	Average	Median
Childminder	£50	£10	£48	£0
Full Day Care	£1,103	£689	£1,149	£575
Out of School Care	£265	£200	£150	£150
Sessional Care	£201	£104	£251	£150

5.14 In conversations with childcare providers, a few reoccurring issues emerged. Childminders in particular noted that training for professional development was often either too general or prohibitively priced. Distance and securing time to attend training were other barriers encountered. The majority of settings in the survey reported not having a specific training budget.

5.15 The 2016 Childcare and Early Years Workforce Survey of Wales showed that there was specific demand for training in child protection/ safeguarding, health and safety, and food & hygiene and first aid (CWLWM, 2017).

¹⁰⁸ Alma Economics Childcare Survey 2016. Professional development sample size – 134 responses, staff training sample size – 149. Figures are indicative only and should not be used to make comparisons over time.

Equipment and materials

- 5.16 The Alma Economics Childcare Survey¹⁰⁹ estimates suggest that equipment and material costs are particularly high for childminders in proportion to other costs. Some providers noted that they were able to manage costs related to equipment and materials through accessing grants and/or resource libraries from their local authority or Flying Start.

Other costs

- 5.17 Other costs reported in the survey include cleaning, utilities and insurance. Utility and cleaning costs for childminders are proportionally higher than for other providers. Some childminders were particularly concerned about the increasing price of gas and electricity. Four of the 6 main electricity suppliers have announced increases between 8%-15% this year (BBC News, 2017).
- 5.18 In terms of other expenses not individually itemised in the survey, some providers noted transport costs can be significant, especially for rurally located settings.

Future of costs

- 5.19 The majority of childcare providers responding to the survey expect a substantial increase in costs with a more modest increase in income over the next two years¹¹⁰. Approximately half of respondents expected costs to rise by 10% or more, with 37% expecting an increase of 10%-30%. Sessional care providers and full day care in particular are expecting substantial cost increases. In contrast, only 14% of providers expected income to rise by 10%, with 39% of respondents expecting an increase of less than 5%.

¹⁰⁹ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

¹¹⁰ Alma Economics Childcare Survey 2016. Sample size – 230. Figures are indicative only and should not be used to make comparisons over time.

5.20 The tables below show our own detailed cost projections for average costs in the sector. These are based on the following assumptions:

a) **Costs other than wages:** We have assumed that these costs will grow in line with nominal GDP, with the Office for Budget Responsibility (OBR) forecasting average growth in 2017-2021 of approximately 3.6%.

b) **Wage costs projection:** Based on the Alma Economics Childcare Survey, around 1 in 5 employees in the sector are currently being paid below the NLW, while on the other end very few are paid substantially more (fewer than 30% of employees appear to earn more than £8 per hour, and only around 10% earn more than £9 per hour).

As the NLW rate increases, the sector will adjust beyond simply upgrading the pay rates of directly affected staff to meet NLW requirements: wages at the top end, for example, are likely to also increase to some extent to retain some differential pay between more senior and more junior employees (Low Pay Commission 2016). At the same time, the sector may also make other adjustments to lower the impact of the changes – for example, trying to increase the proportion of under-25s amongst staff (or reducing the number of staff more generally) so that the NLW is not binding and costs can be lowered.

The OBR produces an official forecast for the expected increase in the NLW and the National Minimum Wage (NMW) in each of the years from 2017 to 2021, with the increase expected to be (on average) 5% for the NLW threshold and 3.4% for the NMW threshold.

5.21 For our analysis, and taking into account the relative proportion of employees earning in the different pay-bands and the fact the changes may lead to changes in the relative composition of the childcare workforce, we are assuming that salaries in the sector will grow by around 4.2% a year on average - at the midpoint between NMW and NLW growth. Please note that we have not explicitly modelled the effect of increased provision of childcare as a result of the offer, as policy details are not yet finalised and they could

materially affect the structure of the sector and the evolution of costs.

Table 26. Childminders: Average costs projection 2016-2021

Cost Category	2016	2017	2018	2019	2020	2021
Staff costs	£1,898	£1,987	£2,068	£2,156	£2,250	£2,339
Staff training costs to meet National Minimum Standards	£50	£52	£54	£55	£57	£60
Staff training costs for professional development	£48	£50	£52	£53	£55	£58
Meals and catering costs	£1,567	£1,626	£1,677	£1,734	£1,800	£1,872
Rent/Premises	£644	£669	£690	£713	£740	£770
Cleaning	£411	£427	£440	£455	£472	£491
Equipment and materials	£1,138	£1,181	£1,218	£1,259	£1,307	£1,359
Utilities	£475	£493	£508	£525	£545	£567
Insurance	£124	£128	£132	£137	£142	£148
Other	£741	£770	£793	£820	£852	£886
Total	£7,096	£7,383	£7,631	£7,908	£8,221	£8,548

Table 27. Full day care providers: Average costs projection 2016-2021

Cost Category	2016	2017	2018	2019	2020	2021
Staff costs	£132,319	£138,532	£144,191	£150,328	£156,908	£163,083
Staff training costs to meet National Minimum Standards	£1,103	£1,144	£1,180	£1,220	£1,266	£1,317
Staff training costs for professional development	£1,149	£1,192	£1,229	£1,271	£1,319	£1,372
Meals and catering costs	£6,907	£7,169	£7,391	£7,643	£7,933	£8,250
Rent/Premises	£16,459	£17,085	£17,614	£18,213	£18,905	£19,661
Cleaning	£3,250	£3,373	£3,478	£3,596	£3,732	£3,882
Equipment and materials	£5,517	£5,727	£5,904	£6,105	£6,337	£6,590
Utilities	£4,958	£5,147	£5,306	£5,487	£5,695	£5,923
Insurance	£1,709	£1,774	£1,829	£1,891	£1,963	£2,041
Other	£14,567	£15,121	£15,590	£16,120	£16,732	£17,402
Total	£187,937	£196,263	£203,712	£211,872	£220,792	£229,522

Table 28. Out of school care providers: Average costs projection 2016-2021

Cost Category	2016	2017	2018	2019	2020	2021
Staff costs	£20,854	£21,833	£22,725	£23,692	£24,730	£25,703
Staff training costs to meet National Minimum Standards	£265	£275	£284	£293	£305	£317
Staff training costs for professional development	£150	£156	£161	£166	£172	£179
Meals and catering costs	£1,773	£1,840	£1,897	£1,962	£2,036	£2,118
Rent/Premises	£3,061	£3,178	£3,276	£3,388	£3,516	£3,657
Cleaning	£568	£590	£608	£629	£653	£679
Equipment and materials	£1,666	£1,729	£1,783	£1,844	£1,914	£1,990
Utilities	£2,000	£2,076	£2,140	£2,213	£2,297	£2,389
Insurance	£396	£411	£424	£438	£455	£473
Other	£1,305	£1,354	£1,396	£1,444	£1,499	£1,559
Total	£32,039	£33,443	£34,695	£36,069	£37,576	£39,063

Table 29. Sessional care providers: Average costs projection 2016-2021

Cost Category	2016	2017	2018	2019	2020	2021
Staff costs	£28,448	£29,784	£31,000	£32,320	£33,735	£35,062
Staff training costs to meet National Minimum Standards	£201	£209	£215	£223	£231	£241
Staff training costs for professional development	£251	£260	£268	£277	£288	£299
Meals and catering costs	£600	£623	£642	£664	£689	£717
Rent/Premises	£2,434	£2,526	£2,604	£2,693	£2,795	£2,907
Cleaning	£597	£619	£638	£660	£685	£713
Equipment and materials	£1,453	£1,508	£1,555	£1,607	£1,668	£1,735
Utilities	£6,321	£6,561	£6,765	£6,995	£7,260	£7,551
Insurance	£365	£379	£391	£404	£419	£436
Other	£1,709	£1,774	£1,829	£1,891	£1,963	£2,041
Total	£42,378	£44,243	£45,908	£47,734	£49,734	£51,702

Income

5.22 Compared to costs, we received fewer responses to the Alma Economics Childcare Survey regarding income. We did not collect sufficient quality data on out of school care providers, crèches and open access play providers to provide detailed breakdowns – combined these settings account for approximately 12% of the sector.

5.23 Due to data quality limitations, it is difficult to estimate the total income received by childcare providers in Wales accurately. However, we can estimate that childminders, full day care settings and sessional care settings received approximately £195 million in 2015-2016¹¹¹.

5.24 Approximately 93% of the total income earned by childminders consisted of childcare fees paid by parents, with the corresponding figure for full day care settings at 88%. It is also interesting to note that the majority of childminders and full day care providers received income exclusively from fees paid by parents and no other source. In contrast, sessional care settings reported obtaining 47% of their income from publicly funded places, with fees paid by parents at 41%.

Table 30. Income sources by setting type¹¹²

Income source	<i>Childminder</i>		<i>Full Day Care</i>		<i>Sessional Care</i>	
	Average	Median	Average	Median	Average	Median
Government Funded Places	£432	£0	£9,912	£0	£13,375	£6,285
Childcare Fees (parents)	£13,273	£12,000	£167,995	£111,471	£11,826	£6,215
Grants	£490	£0	£3,945	£0	£1,433	£0
Donations and Fundraising	£0	£0	£2,401	£0	£1,635	£1,000
Other	£125	£0	£6,182	£0	£469	£0

¹¹¹ Alma Economics Childcare Survey 2017. This figure includes the estimated income of childminders, full day care providers and sessional care providers. Sample size – 160. Figures are indicative only and should not be used to make comparisons over time.

¹¹² Alma Economics Childcare Survey 2017. Sample size – 160. Figures are indicative only and should not be used to make comparisons over time.

- 5.25 Government funded places refers to a range of different funding sources, including but not limited to Flying Start, early years funding, Local Authority funding for respite care and Children Looked After and PaCE funded places. Full day care and sessional day care settings receive far higher income from publicly funded places. For example, in the SASS individual data, of the settings which receive Flying Start funding approximately 49% are sessional day care, 36% full day care and only 14% are childminders. In terms of recipients of early years funding, 40% are full day care and 60% sessional day care settings.
- 5.26 With respect to grants, there are a range of options available to childcare providers depending on their size and their local authority. To give an example, some LAs provide childminders with small scale start-up grants to cover essential equipment. Larger scale sustainability grants or infrastructure upgrade grants are also available in some areas. There appears to be extensive variation across LAs in terms of the availability and size of these grants. In some of our conversations with sessional care providers, it was noted that these types of grants can assist providers to adapt to changing circumstances and upgrade infrastructure.

Profitability

- 5.27 In this section we examine profitability in the childcare sector in more detail. Results regarding profitability are inherently biased as information on providers that had to exit the market is not recorded – the so-called “survivor bias”. In addition, profits and losses may vary dramatically from year to year depending on various business decisions or one-off-expenses, such as infrastructure upgrades.
- 5.28 Most childcare providers make relatively low profits. The Alma Economics Childcare Survey¹¹³ estimates that, in 2016-2017,

¹¹³ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

approximately a quarter of providers expect to operate at a loss, which is consistent with data from the previous two financial years. Sessional day care and full day care settings were more likely to report a loss than childminders – which is not surprising as childminders do not generally draw a salary (which would be recorded as a cost). The survey estimates that approximately 40% of sessional care providers and 35% of full day care settings reported losses in the past financial year. On average, sessional care providers are the least profitable with a particularly dramatic decrease in profitability in the past financial year. Profit levels in the full day care sector have also decreased in the past 3 years. However, profits have increased for childminders and out of school care providers. Note that given the limited changes in profitability and the relatively small sample size, the estimated *changes* to average profitability should be treated somewhat cautiously.

Table 31. Profits by setting type¹¹⁴

Financial year	<i>Childminder</i>		<i>Full Day Care</i>		<i>Out of School Care</i>		<i>Sessional Care</i>	
	Average	Median	Average	Median	Average	Median	Average	Median
2014-2015	£6,655	£5,250	£14,686	£9,000	£2,724	£590	£1,334	£206
2015-2016	£8,117	£6,169	£11,859	£6,958	£3,304	£185	£1,967	£844
2016-2017	£8,014	£8,000	£10,360	£2,820	£3,728	£200	£344	£400

¹¹⁴ Alma Economics Childcare Survey 2017. 2014-2015 sample size -131, 2015-2016 sample size -153, 2016-2017 sample size – 130. Figures are indicative only and should not be used to make comparisons over time.

Efficiency

5.29 In the Alma Economics Childcare Survey, we asked providers about the number of child-hours they delivered in the average week during term-time and during the school holidays. For example, if a provider cared for 10 children for 10 hours each that would equal 100 child-hours. We then extrapolated the hours for term-time (38 weeks of the year) and holiday time (10 weeks of the year) to obtain a figure for the total number of child-hours delivered in a year. Finally, we divided the total costs supplied for 2015-2016 by the number of child-hours in a year to arrive at the cost per child-hour for each provider.

Table 32. Cost per child-hour¹¹⁵

Setting type	Average	25 th percentile	Median	75 th percentile
Childminder	£1.90	£0.82	£1.22	£2.00
Full Day Care	£6.34	£1.61	£2.62	£5.28
Out of School Care	£5.21	£1.47	£1.82	£2.73
Sessional Care	£5.96	£2.15	£2.63	£3.84

5.30 Out of school care settings and childminders reported the lowest cost per child-hour. To some extent this can be attributed to their low average staffing ratios, which is discussed in further detail on the next page. Also, it should be noted that it is likely that the average cost per hour for childminders appears lower due to the exclusion of salary/profit in total cost calculations as discussed earlier. Full day care settings reported the highest average cost per childcare hour.

¹¹⁵ Alma Economics Childcare Survey 2017. Sample size - 136 - figures are indicative only and should not be used to make comparisons over time.

- 5.31 For all types of providers responding to the survey other than childminders, the median and even the 75th percentile provider reported lower costs per child-hour than the average – in other words, a relatively small number of providers appear to have significantly higher costs, driving up the average. While we have applied a number of checks and corrections to individual responses to minimise the potential for erroneous responses to be driving the results, it is possible the average costs reported in the table above somewhat overestimate the true average.
- 5.32 It is important to note that a range of factors influence the cost per child-hour for a setting, including geographic location, holiday opening hours and the age of children cared for. There is not sufficient quality data to examine these factors in further detail.
- 5.33 Based on our earlier analysis on the likely evolution of total costs, the table below shows the expected cost per child-hour in each year to 2021¹¹⁶.

Table 33. Cost per child-hour projection - 2016-2021

	2016	2017	2018	2019	2020	2021
Childminder	£1.90	£1.97	£2.04	£2.11	£2.20	£2.28
Full Day Care	£6.34	£6.62	£6.87	£7.14	£7.44	£7.74
Out of School Care	£5.21	£5.44	£5.64	£5.87	£6.11	£6.35
Sessional Care	£5.96	£6.22	£6.45	£6.71	£6.99	£7.27

¹¹⁶ We assume that the cost per child-hour will grow at the same rate as average total costs.

Staffing ratios

5.34 We also examined the average staffing ratios for different settings to understand the employment structure of providers. On average, full day care settings have the highest number of employees per setting, followed by crèches and open access play provision¹¹⁷. This is unsurprising considering the services provided and mandated staffing ratios¹¹⁸. While a higher staff to registered place ratio may suggest that a setting cares for younger children, there are also other factors to consider. For example, full day care providers that are registered to care for 20 or more children are not able to include managers in their staffing ratios, which likely contributes to their comparatively higher average staff numbers (The Welsh Government, 2016b).

¹¹⁷ SASS 2016 - Individual level data

¹¹⁸ In Wales, a childminder can care for ten children aged up to 10 years old; of those, no more than six may be under to the age of 8; of those six, no more than three may be under 5 years of age; of those three children normally no more than two may be under 18 months of age, although exceptions can be made for siblings. For a day care the staffing ratios are: one adult to three children under 2 years; one adult to four children aged 2 years; one adult to eight children aged 3 - 7 years; one adult to ten children aged 8 – 12 years. In full day care settings registered for 20 or more children, the manager should not be included in any calculation of staffing ratios. For open access play, the staffing ratio is 1:13 for children aged under 8. Children under 5 do not generally attend such provision and ratios may need to be higher for schemes which operate in public parks. (The Welsh Government, 2016b)

Table 34. Average staffing ratios for childcare providers in Wales ¹¹⁹

Setting type	Average number of children registered to care for	Average number of staff	Average staff to child ratio
Crèche	30.00	6.25	1:5
Full Day Care	44.22	11.91	1:4
Childminder	7.39	1.12	1:7
Open Access Play Provision	72.50	7.75	1:9
Out of School Care	35.96	5.38	1:7
Sessional Day Care	23.03	4.22	1:5

5.35 In terms of whether it would be possible to improve efficiency through economies of scale, there was a mixed response from providers. In the Alma Economics Childcare Survey, a quarter of respondents agreed that there was scope to share administrative and support services with other childcare providers but around 20% strongly disagreed¹²⁰. Providers we talked to through interviews seemed more likely to achieve economies of scale through partnering with social care services other than childcare. For example, one voluntary provider discussed sharing premises and administrative support services with a community group to reduce fixed costs. There was far more hesitancy to collaborate with other childcare providers in this manner due to the issues relating to privacy and competition.

¹¹⁹ SASS 2016 - Individual level data.

¹²⁰ Alma Economics Childcare Survey 2017. Sample size - 252 - figures are indicative only and should not be used to make comparisons over time.

6. Conclusion

Recognising that childcare enables parents to work, supports economic growth, and helps tackle poverty and inequality, the Welsh Government has made flexible, affordable and high-quality childcare a priority for the next five years.

The childcare sector plays a central role in the Welsh economy by supporting parents to work and providing employment to a significant number of individuals. It's estimated that around 17,300 individuals work in the childcare sector, which is around 1.2% of the active workforce in Wales¹²¹. The majority of employees work under 35 hours a week for low wages¹²². Even though qualification levels are increasing, this does not appear to have translated to a substantial increase in average wages.

Based on analysis using the Family Resources Survey, it is estimated that the total employment and self-employment income per year of the lowest-earning parent in households with dependent children aged 0-19 accessing some form of formal childcare was around £1.2 billion in 2015-16.

Over the past 20 years the childcare market has significantly changed and now over 18,000 childcare places are delivered across Wales by approximately 4,000 registered childcare providers. The majority of childcare providers are childminders (52%). The remaining childcare provision is delivered by sessional day care settings (20%), full day care settings (17%), out of school care settings (10%), open access play provision (1%) and crèches (0.5%)¹²³. The examination of waiting lists and demand across Wales reveals the diversity of the sector and the specific challenges faced in certain areas. Policy changes – such as the Childcare Offer for Wales, the increase in the National Living Wage, growing focus on additional learning needs, and the expansion of Welsh language use – will likely create a range of opportunities and challenges that need to be carefully managed.

¹²¹ SASS 2016 – aggregated level data

¹²² Alma Economics Childcare Survey 2017

¹²³ CSSIW's directory of registered children's day care settings – December 2016

In 2015-2016, we estimate from the Alma Economics Childcare survey¹²⁴ that childminders, out of school care, full day care and sessional care settings spent £190 million on operating costs. Staff costs across all setting types tend to be the most significant expense. In terms of income, we estimate that childminders, full day care settings and sessional care settings received approximately £195 million in 2015-2016. Survey findings suggest that approximately 93% of the total income earned by childminders consisted of childcare fees paid by parents, with the corresponding figure for full day care settings at 88%. In 2016-2017, it is estimated that approximately a quarter of providers expected to operate at a loss.

The Childcare Offer for Wales has the potential to create new demand but the risks associated to such a significant change must be carefully managed to encourage the sustainable expansion of the sector.

Recommendations

Further research

This report has revealed potential areas for further research:

- 1) Further detailed research is required to understand how the National Living Wage may impact the childcare sector in Wales, particularly with regards to salary, qualifications, working hours and career progression. As underpayment of childcare workers has been an issue in England, it would also be worth exploring whether it is relevant to the Welsh context too.
- 2) Due to the limited timeframe and wide scope of this work, it was not possible to undertake a detailed investigation into the impact of specific regulations on service provision. To understand the cost of regulations and how it may affect the behaviour of childcare providers, targeted research, perhaps based on detailed case studies, is required.

¹²⁴ The figures from the Alma Economics Survey are indicative only and should not be used to make comparisons over time.

- 3) It will be important to monitor the lessons learned from the implementation of the pilot programme in England. The evaluation of the pilots may provide guidance for policymakers in Wales. Moreover, as the pilot programmes for the Childcare Offer for Wales are rolled out, it will be important to monitor the impact on the provision of other funded places, such as Flying Start.
- 4) To fully understand the potential value of the childcare sector in Wales, further investigation is required to understand the number of people prevented from working due to lack of sufficient access to childcare in Wales.
- 5) A detailed needs assessment of specialist training requirements related to additional learning needs would assist support networks to deliver tailored training programmes and help in increasing the quality of childcare provision.

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Annex 1 Types of Childcare Providers

Childminding

This is childcare provided by one or more people for children from birth up to the age of 12 years within domestic premises that is not the child's own home for more than 2 hours a day in return for payment or reward. Child minders, can offer full day care or part-time care including before and after school provision. Their charges are set according to the service(s) they offer and parental demand. As part of the flexible service, some childminders take children to and from school whilst some offer provision outside standard hours, for example in the evenings at weekends as well as providing care during school holidays. Generally, anyone who proposes to operate as a childminder must be registered with the CSSIW unless they are exempted from registration because for example they are operating for less than 2 hours a day, are only caring for children over the age of 12, or if the care is between friends with no payment being made for the service. Some childminders are part of local networks (some networks being more formalised than others) where support and training is available and where they can join with other groups for shared activities.

Day Care

Day care is provided on non-domestic premises and generally must be registered with the CSSIW if the provider is caring for children up to the age of 12 years for more than two hours a day. Day care can be provided for children over the age of 12, or for under 2 hours per day, but these providers would be exempt from the registration process. It covers a range of different types of provisions:

Full Day Care

Full day care is for children from birth up to the age of 12 years, provided for a continuous period of 4 or more hours in any day. It may include day nurseries, offering full or part-time care, including before and after school provision, holiday care and wrap around care (provision supporting parents where children are receiving the funded education places).

It can also encompass settings offering a variety of sessional care services throughout the course of that day which can include Welsh and English-medium play groups, Cylch Meithrin, wrap around care, funded education places and free childcare places.

Sessional Care

Sessional Care is for children from aged 2 onwards, which is for less than a continuous period of 4 hours in any one day. The service is mainly used by children aged from 3 to 5 rather than babies or toddlers, although some may admit 2 year olds. Sessional care can offer play group provision, Cylch Meithrin funded education places and free childcare places.

Out Of School Childcare

Out of School Childcare refers to childcare outside of the child's full-time school day and includes care provided before school, after school and during the school holidays. It does not include wrap around care and the Welsh Government free breakfast in primary schools scheme. If the total care for children aged up to 12 years is more than two hours in any day and for more than five days a year the provision must be registered with the CSSIW.

Crèches

Crèches offer occasional day care for children aged from birth up to the age of 12 years on non-domestic premises. They need to be registered with the CSSIW, where they run for more than two hours a day and more than five days a year, even where individual children attend for shorter periods. Some

are in permanent premises and care for children while parents are engaged in particular activities (e.g. training, shopping or sport). Others are established on a temporary basis to care for children while their parents are involved in time-limited activities (e.g. a conference or an exhibition).

Open Access Play Provision

Staffed open access play provision operating for over 2 hours a day for children up to the age of 12 years can be permanent or temporary provision, located in a variety of settings with or without premises and can include holiday play schemes. This provision usually caters for a wide age range of children, normally aged 5 years old and over. The purpose is to provide staffed play opportunities for children usually in the absence of their parents. Children are not restricted in their movements, other than where related to safety matters and they are not prevented from coming and going as and when they wish.

Annex 2 Literature Review

Policy background

There is extensive evidence showing that early childhood interventions, including high-quality early years education and childcare, can positively affect long-term health, education and employment outcomes and provide significant economic returns for governments.

There is also growing evidence to suggest that high quality, accessible and affordable childcare can help to reduce poverty and inequality. Between 2013-14 and 2015-16, approximately 23 percent of all individuals in Wales were living in relative income poverty (i.e. living in a household where the total household income after housing costs was 60% less than the median UK household income)¹²⁵. Children with positive early childhood development outcomes are more likely to be safeguarded from the adverse effects of poverty and achieve higher education and employment outcomes (Irwin et al., 2007; Marmot, 2010; The Welsh Government, 2013).

As a devolved administration, the Welsh Government faces additional challenges in implementing policies related to childcare. International governments often aim to improve affordability and access to childcare through interventions in the supply-side (e.g. by subsidising providers to deliver free services) or the demand-side of the market (e.g. by subsidising costs through tax credits etc.) (Rutter, 2016a). As the central government retains power over key policy areas, particularly in regards to benefits and taxes, the Welsh Government is limited in its capacity to enact demand-side interventions. As noted by Dallimore (2014), "...the Welsh Government's childcare policy has to be written with one hand tied behind its back." However, it should be noted that in recent years some taxes, such as stamp duty land tax, have been devolved and there are plans for the partial

¹²⁵ Department for Work and Pensions - Households below average income, June 2017

devolution of income tax from April 2019¹²⁶. The Welsh Government can still intervene on the supply side of the market through controlling regulations, increasing the provision of state-funded early education and childcare and providing small grants (Dallimore, 2014).

In 2013, the Welsh Government signalled its clear commitment to a multi-sectoral coordinated approach to early years through its policy document *Building a Brighter Future: Early Years and Childcare Plan*. The plan has a strong focus on reducing inequality and poverty. At the time of publication, approximately one in three children were living in poverty in Wales, with 20% living in absolute poverty (The Welsh Government, 2013). In the wake of Building a Brighter Future, the Welsh Government initiated a range of reforms and strategies to improve the childcare sector as a whole. In particular, in 2014 consultations began on a draft 10-year plan for the Early Years, Childcare and Play Workforce in Wales. The proposed plan focuses on improving leadership, attracting high-quality new entrants and raising skills and standards in the existing workforce. Also in April 2016, after extensive consultation, a range of reforms were introduced to childcare regulations and National Minimum Standards for formal childcare. The reforms, among other measures, increased the age limit for registration from 8 to 12 years old, introduced new inspection frameworks and revised staffing ratios.

Childcare supply and demand

Evidence suggests that labour force participation and demand for childcare tends to decrease as the price of childcare rises and tends to increase as wages rise. Additionally, there is evidence showing that demand may not be as responsive as expected to financial incentives due to parental preferences (Joesch and Hiedemann, 2002). The literature indicates that demand for childcare and mothers' labour force participation is not only affected by financial incentives (i.e. wages, childcare subsidies, employability, etc.), but also by personal preferences, beliefs and characteristics (e.g. religion, ethnicity, education etc.). The substitutability between formal and informal

¹²⁶ More information available at: <http://gov.wales/funding/fiscal-reform/>

childcare and the responsiveness of childcare supply to changes in demand are also important to understand the application and effect of financial incentives related to childcare (e.g. subsidies, tax credits, etc.)¹²⁷.

In this section, we discuss the concept of *elasticity of demand*, which refers to the impact certain changes can have on demand. Two types of *elasticity of demand* are discussed – price elasticity and wage elasticity. Wage elasticity of demand measures the effect of 1% increase in wages on demand. Price elasticity of demand measures the change in demand for a product or service due to a 1% increase in its price. Studies using UK data provide evidence for a childcare price elasticity of demand somewhere between -0.46 to -0.26, while evidence from US and Canada provide a much wider range of -1.48 to -0.15.

Relationship between price and childcare (UK)

Viitanen (2005) provides evidence on how childcare costs affect the decisions made by mothers of preschool children to participate in the labour market and use of formal, paid care. The study suggests that increases in the cost of childcare has a strong negative effect on childcare use. In fact, the estimated price elasticity is -0.46, which means that a 10% reduction in the cost of childcare would increase childcare use by 4.6%. Based on these results, Viitanen (2005) developed childcare subsidy simulations, which showed that a 25% subsidy would have a modest effect on the use of formal childcare and labour force participation, with an increase of only three percentage points each. Even at the highest level of subsidisation (50%), not every employed mother would use formal childcare. Many families prefer informal care by relatives, even when formal childcare is heavily subsidised.

Duncan et al. (2001) provide additional evidence by using five years of FRS data from 1994/5 to 1998/9. The sample consists of married working mothers and their methodology predicts childcare prices for preschool children

¹²⁷ Informal childcare generally refers to childcare that is unregistered (e.g. care provided by family, friends, short-term babysitters) while formal childcare relates to registered childminding or day care and open access play provision.

controlling for quality and quantity effects. These predicted prices are then used in probit and regression models to evaluate the impact of price on the probability of using formal childcare and the quantity demanded. The resulting price elasticities range from -0.26 to -0.46. The model which includes all different combinations of hours and quality controls had a price elasticity of -0.32.

Duncan et al. (2001) also examined the effect of price changes on the hours of childcare demanded. Their study shows that childcare price does not have an impact on the hours of care demanded. Moreover, they studied the effect of childcare prices on the quality of childcare purchased and it was observed that in areas where the price is higher, a lower quality of care (as measured by the level of childcare expenditure related to the price) tends to be chosen. However, the estimated impact is small; the results suggest that in areas where the price is 10% higher than the average, the selected level of childcare quality is 0.7% lower than the average.

A study by Chevalier and Viitanen (2004) is one of the few that does not make the assumption that supply of childcare is perfectly elastic and thus responsive to changes in demand. Their model studies the possibility of a disequilibrium between demand and supply of childcare that could result in a queue (i.e. mothers demanding, but not receiving care for their children). The study initially estimates both a queue and a non-queue model, but the non-queue model is rejected by a likelihood ratio test, confirming the possibility of a non-perfectly responsive supply and the existence of a queue. According to the results, the prices of the two types of providers, childminders and nurseries, have a negative effect on demand. It is worth noting that the demand for childcare is about 10 times more sensitive to the price of a childminder than that of a nursery/playgroup.

Finally, Chevalier and Viitanen (2004) perform some simulations of possible policies targeting prices and availability. The simulations explore a 10% reduction in the average LA price of childcare, a 10% increase in the provision of school in education, a 10% increase in the proportion of free providers at LA and a shift of supply by one quintile. The effects were as expected - lower

prices and wider availability would increase the probability of demanding childcare and decrease the probability of a provider putting a child on waiting list. However, the magnitudes of the effects are modest. In fact, the greatest changes (which were found in the scenario where all policies were applied) showed an increase of 1.3 percentage points in demand for childcare, an increase of 3.4 percentage points in the acceptance rate (given childcare is demanded) and a decrease of 1.1 percentage points in the rejection rate.

Impact of free childcare

Brewer et. al (2016) examined the impact of additional free hours of childcare on use and labour market outcomes for mothers and fathers in England. The authors examined changes as children moved from being entitled to 15 hours of free childcare per week in a nursery setting to 30 hours in an education setting. The study found that there was a limited impact on work patterns. Mothers of children whose youngest child was entitled to free full-time care were around 3.5 percentage points more likely to be working compared to mothers whose youngest child was towards the end of their part-time entitlement. In addition, the study suggested that childcare use does increase with additional free hours but only marginally.

A study by Pettit and Hook (2005) suggested that there is a positive relationship between enrolment levels in publicly funded childcare and maternal employment. They found that, on average, a percentage point increase in the proportion of children enrolled in publicly funded childcare aged up to 2 would result in a 2.9% increase in the employment of mothers of young children, controlling education, age, relationship and other characteristics. There is some variation in the literature regarding the extent that free childcare is associated to an increase in maternal employment.

Relationship between price and childcare (US and Canada)

Studies from US provide a wider range of evidence, allowing for comparisons to UK results and providing estimators for wage elasticity of childcare demand, which is uncommon in the UK literature.

Tekin (2007) developed and estimated a behavioural model to study the relationship between part-time and full-time employment and the decision to pay for childcare. This study solely focused on single mothers with at least one child younger than 13. Tekin estimates jointly a multinomial logit model, the price equation for childcare and mothers' wage using data from the 1997 National Survey of America's Families (NSAF). The results showed that a decrease in the price of childcare increases the use of paid childcare. In fact, the overall price elasticity of paying for care was estimated to be -0.15. This estimate falls in the lower end of the range of elasticities reported in US studies using a similar methodology. For example, Blau and Hagy (1998) estimated an elasticity of -0.34 for a sample of both married and single mothers, while Michalopoulos et al. (1992) found it to be -0.30 for single mothers.

Tekin (2007) reports a positive effect of wages on demand for childcare. His study estimates an elasticity of 0.71 for full-time wages and 0.11 for part-time wages. Using these results, he assessed the effects of different policies on employment and demand for childcare which showed that a decrease of \$1 in the hourly price of childcare would increase the probability of paying for childcare by 4 percentage points (9.3 percent). In the same way, a wage subsidy of \$1 per hour would lead to an increase of 5.7 percentage points (13.3 percent) in using paid childcare for full-time wages and a 0.8 percentage points (1.9 percent) for part-time wages.

Joesch and Hiedemann (2002) also explored the different drivers of parents' decision to use childcare and the number of childcare hours they consume. The study showed that income and price of childcare does not affect the decision to consume childcare at all. It only affects the number of hours demanded once parents decide to enter the market. These findings are in contrast to some of the evidence in UK studies (Duncan et al., 2001). Joesch and Hiedemann showed that a reduction in the price of care by \$1 per hour would be associated with 2 to 2.5 hours of additional care per week. Regarding the mothers' wages, they found that an additional dollar of

earnings per hour is associated with an increase in care ranging from 32 mins/week and 69 mins/week.

Joesch and Hiedemann (2002) investigate the demand for non-relative care in the US using data from 1990 National Childcare Survey and 1990 Profile of Childcare Settings. Their study examines the fact that many parents in the US care exclusively for their children, even when they are employed. The possible reasons tested are the corner solution and the preference heterogeneity. The models created by the authors confirmed that some parents do respond to financial incentives, while others would never consume non-relative care regardless of cost or income.

According to the evidence, demand is strongly affected by financial incentives. However, the modest results produced by any level of subsidy in the policy simulations create a certain degree of scepticism (Chevalier and Viitanen, 2004; Tekin, 2007).

Other factors

Childcare decisions depend on family and parental characteristics. Chevalier and Viitanen (2004) showed that a mothers' age and education, as well as family income and the age of the youngest child, all can impact childcare demand.

Joesch and Hiedemann (2002) also highlighted that the educational level and the religious beliefs of mothers, the age of the children, the family size and the presence of alternative caregivers are also contributing factors.

Duncan et al. (2001) explored the relationship between quality and different characteristics of mothers. Their findings suggested that there is a tendency for mothers possessing a middle level of education (i.e. those who left education at the age of 17-21) to opt for higher quality of childcare. Also, the mothers' income is positively associated with the quality choice, while the number of siblings is negatively related to the quality chosen.

Substitutability between formal and informal childcare

Chevalier and Viitanen (2004) observed mothers waiting for formal care in the UK. The majority of mothers who do not get access to formal childcare would rather take care of their children themselves than rely on informal care.

Interestingly, Brewer et al (2016) found that children spend fewer hours in informal care as they become entitled to free formal care.

The supply of childcare

An understanding of factors affecting supply is also necessary to facilitate the increase of childcare demand and female labour force participation. If supply does not respond to changes in demand, incentives could just result in queues.

Chevalier and Viitanen (2002) studied whether the market for the provision of childcare reacts to demand changes by using UK data for the period between 1992-1999. By examining the labour force participation of mothers of young children (using this as a proxy for childcare demand), they concluded that childcare supply does not respond to changes in demand. This could be due to regulations creating challenges for new entries on the supply side. These findings should be treated cautiously as there were several limitations in their methodology, including the short time period, the variable used to measure childcare supply (the proportion of childcare workers in the labour force) and the variable used to measure demand (the labour force participation of mothers of young children).

Regarding the existence of a queue, Chevalier and Viitanen (2004) analysed a sample of British mothers with at least one preschool aged child and found that 50.3% of these mothers would like to use formal childcare, however only 47.3% of these demands were met.

Supply trends in Wales

Welsh specific evidence is extremely limited. Dallimore (2014) explored changes in Welsh childcare provision from 2007 to 2013. Dallimore (2014) suggests that the overall level of childcare in Wales has not changed significantly during this period and that Welsh childcare sector, in comparison with the English one, has shown an unexpected resilience to economic recession.

The study found that the number of full-day care settings (mainly day nurseries), had increased in the most affluent areas, while the number of sessional day care settings (e.g. preschool playgroups, etc.), childminders and out-of-school clubs had decreased. This is to be anticipated, as small settings are more exposed to recession-related risks. It is also noted factors such as the maturation of the market, reduction of childbirths and changes in working patterns may also contribute to these trends.

Moreover, the study concluded that deprivation, as well as some other related factors (e.g. the number of lone parents), and childcare supply levels are closely linked. Dallimore tested changes in childcare places in each local authority against a range of external factors including levels of child deprivation, job density and rurality. There was no correlation between changes in employment changes in the number of childcare places between 2008 and 2013. There also was no substantial link between unemployment in households with dependent children and changes in childcare supply.

The relationships between the different possible factors and the final demand and supply of childcare were tested for their significance using just correlation coefficients. This methodology combined with the fact that the data used was aggregated by LAs, did not allow the author to explore the effect of each factor on supply or demand. Consequently, the results are extremely useful for observing the trends in Wales, but not for establishing relationships and robust estimators of each factor's effect. Moreover, it must be acknowledged that registered childcare is only a part of the broader childcare sector in Wales, as it is estimated that over 40% of the parents use unregistered (either

illegal or non-complying with the regulations provided) and informal childcare (Dallimore, 2014).

The effect of childcare on employment

Affordable childcare can provide mothers with the option of entering or continuing in the workforce and the opportunity to increase their earnings. Through facilitating employment and higher income levels for families, childcare can positively affect the economy.

Chevalier and Viitanen (2004) focused on estimating whether formal childcare availability affects women's employment. They used UK data from Quarterly Labour Force Survey for the period between 1992 – 1999 to measure female labour supply and supply of childcare. The results support the view that the lack of childcare facilities constrains female labour supply and that changes in accessibility (referring either to price or availability) affect employment levels and consequently has an impact on the economy.

Viitanen (2005), through using a sample of married or co-habiting mothers of preschool children, demonstrated that wages have a positive effect on employment, while childcare prices have a negative effect. The estimated elasticities are 0.42 and -0.14 respectively. Consequently, a 10% increase in wages would result in a 4.2% increase in labour force participation of mothers of preschool-aged children, while a 10% decrease in childcare price would result in a 1.4% increase in the mothers' probability of employment.

In general, the US literature supports the evidence above but provided greater detail on part-time and full-time employment. Tekin (2007) showed, through using a US sample of single mothers with at least one child younger than 13, that a decrease in the price of childcare increases the probability of employment. Tekin's study also estimated that the childcare price elasticities of full-time and part-time employment were -0.14 and -0.07 respectively, while the overall price elasticity of paying for care was -0.15.

Tekin's (2007) simulations, based on the elasticities stated above, showed that a decrease of \$1 in the hourly price of childcare, would increase full-time employment by 6.1%, part-time employment by 2.7% and overall employment by 5.2%. He also calculated the cost-efficiency of a wage and a childcare subsidy, as measured by the additional number of hours of work generated per dollar of government expenditure. The results showed that a 50% subsidy is most cost efficient as it yields approximately 0.08 additional hours of work per dollar. In contrast, a full-time wage subsidy would yield 0.07 hours per dollar and the part-time wage would yield just 0.001 hours per dollar.

Regarding the childcare price elasticity of overall employment, the majority of US evidence suggests a negative elasticity usually in the range of -0.40 to -0.09. For example, Ribar (1992), Blau and Robins (1998), Michalopoulos et al. (1992), and Blau and Hagy (1998), with the aid of a multinomial choice model, provide elasticity estimates of 0.09, -0.38, -0.16 and -0.20 respectively.

Overall, childcare seems to have a strong effect on employment and thus the economy as a whole; a lower price of childcare increases maternal labour force participation with the effect ranging from -0.14 to -0.09 in the UK and from -0.92 to -0.09 in the US (for overall employment). Full-time employment is consistently more elastic than part-time employment and there is some evidence suggesting that married mothers are more responsive to price changes with respect to employment decisions (Jenkins and Symons, 2001; Kimmel, 1998; Viitanen, 2005).