

Analysis of the estimated number of children of key workers and vulnerable children needing exception school provision as a result of Covid-19 school closures

The list of 'key workers' used was provided by Cabinet Office on the 19th March 2020 and is attached below.

This list was matched to the Annual Population Survey (APS) 2018 data using Standard occupation Classifications (SOC) codes. However, just less than half of the occupations listed as key workers have not been included as it has not been possible to match to an occupation at an appropriate level. For example, it is not possible to disaggregate cleaners or caterers who work specifically in Health and Social care. This is consistent with how DfE (England) are calculating their estimates. As a result, the estimates for the numbers of children of is approximate only.

Number of children aged 16 and under where parent(s) or guardian(s) are key workers, 2018, Wales		Estimated number of pre-school children (0-4)	Estimated number of primary school age children (5-11)	Estimated number of Secondary School Age Children (12-16)
Both parents	48,900	12,225	21,394	15,281
Lone parent	29,200	7,300	12,775	9,125
One parent	179,800	44,950	78,663	56,188
Neither parent	317,600	79,400	138,950	99,250
Total number of children aged 16 or under in Wales, 2018	575,500			
Proportion of children accessing provision if both parents and lone parents eligible (%)				13.6
Proportion of children accessing provision if all children with one or more key worker parent eligible (%)				44.8

Estimated figures have been compared to figures analysts in DfE (England) have put together, using the information sources available to them. This gives us some confidence our approximate figures are reasonable, given expected differences geographically across England (with London in particular having a different public

and private sector proportionate split of workers). This high level comparison is given below.

	Wales	England
Key Workers as a proportion of all employees	32%	29%
Proportion of under 16 year olds where either both or lone parent(s) are key worker	13%	14-19%
Proportion on under 16 year olds where at least one parent is a key worker	43%	33%

A big unknown factor in the analysis is the level of take up by key worker parents. The Childcare Offer¹ take up of around 50% could act as a higher estimate for take up as this displays parents making a behavioural choice to avoid funded provision in favour of informal care for a range of reasons, but the age of a child is also likely to have a bearing on decisions. In a pandemic parents could be more inclined to use informal care, as they will be more reassured by being able to choose a known care provider and therefore be more assured that the setting is kept clean and safe (from those carrying infection). In short, take up levels are unknown.

In terms of the analysis done, the proportion of children accessing the exceptional provision for key workers has been calculated based on an assumption that those children with either both parents in key worker roles or with a lone parent in key worker role would be eligible. A proportion has also been included for all children with at least one parent in a key worker role for comparison.

It should be noted that the breakdown for different school age groups has not come from real data but is estimated based on a proportion of the total 16 and under population depending on how many years provision is included in each cohort.

The estimates for the number of vulnerable children² who would be entitled to provision are included in the summary table below. At first a more detailed list of potential groups was considered³, but it has initially been decided we should consider categories that are more easily (or practically) identifiable and that we would be more able to evidence eligibility.

¹ for working families of 3 and 4 year old children, that meet specific criteria: <https://gov.wales/childcare-offer-for-wales-campaign>

² We have defined vulnerable children to include children who have care and support needs, which include children with care and support or support plans, children on the child protection register and children looked after, young carers, disabled children and those with Statements of special educational needs.

³ For instance, including children at risk of domestic abuse, parents who do not prioritise feeding them (not necessarily income related), etc.

Vulnerable Children	
Looked after	6,677
Child protection register	2,214
Receiving care (not above categories)	7,530
Statement of special needs	13,168
Total	29,589

Source: PLASC

These figures are for children under age 16 in school only. Overlap between categories of vulnerable children, and with key worker families, is not yet well understood. We believe these estimated figures are reasonable, as they are aligned with DfE (England) figures⁴ proportioned to the Welsh population.

The tables below do not provide any estimated numbers of children that may receive support other than attended provision eg. food provision only⁵.

⁴ Based on an email from DfE (England) Priority Projects Central Analysis Team sent to the Welsh Government on 19/3/2020

⁵ The number of children in schools eligible for free school meals is 68,670.

Number of adults who are key workers by occupation, year ending 2019 quarter 3, Wales			
Occupation	Number of workers	Percentage of all Key workers	
1181 Health services and public health managers and directors	2,800	0.6%	
1184 Social services managers and directors	2,800	0.6%	
2211 Medical practitioners	12,100	2.6%	
2212 Psychologists	1,900	0.4%	
2213 Pharmacists	3,500	0.7%	
2217 Medical radiographers	1,600	0.3%	
2221 Physiotherapists	3,200	0.7%	
2231 Nurses	33,500	7.1%	
2232 Midwives	2,200	0.5%	
2442 Social workers	6,400	1.3%	
3111 Laboratory technicians	3,600	0.8%	
3213 Paramedics	1,500	0.3%	
3217 Pharmaceutical technicians	2,300	0.5%	
3218 Medical and dental technicians	2,300	0.5%	
3219 Health associate professionals n.e.c.4	2,700	0.6%	
4211 Medical secretaries	4,800	1.0%	
6141 Nursing auxiliaries and assistants	21,200	4.5%	
6142 Ambulance staff (excluding paramedics)	1,400	0.3%	
6143 Dental nurses	2,600	0.5%	
6145 Care workers and home carers	47,400	10.0%	
6146 Senior care workers	3,700	0.8%	
9271 Hospital porters	1,200	0.3%	
2312 Further education teaching professionals	6,900	1.5%	
2314 Secondary education teaching professionals	20,500	4.3%	
2315 Primary and nursery education teaching professionals	19,500	4.1%	
2316 Special needs education teaching professionals	4,200	0.9%	
2317 Senior professionals of educational establishments	3,700	0.8%	
2319 Teaching and other educational professionals n.e.c.4	11,800	2.5%	
6121 Nursery nurses and assistants	8,300	1.7%	
6122 Childminders and related occupations	2,700	0.6%	
6123 Playworkers	1,500	0.3%	
6125 Teaching assistants	16,500	3.5%	
6126 Educational support assistants	10,200	2.2%	
1171 Officers in armed forces	-		
1172 Senior police officers	-		
3311 NCOs and other ranks	1,900	0.4%	
3312 Police officers (sergeant and below)	5,200	1.1%	
3314 Prison service officers (below principal officer)	1,200	0.2%	
9241 Security guards and related occupations	8,000	1.7%	
1211 Managers and proprietors in agriculture and horticulture	-		
5111 Farmers	18,400	3.9%	
5119 Agricultural and fishing trades n.e.c.4	1,500	0.3%	
5431 Butchers	1,200	0.3%	
5432 Bakers and flour confectioners	1,800	0.4%	
7112 Retail cashiers and check-out operators	7,700	1.6%	
8111 Food, drink and tobacco process operatives	8,400	1.8%	
8211 Large goods vehicle drivers	17,900	3.8%	
8212 Van drivers	10,500	2.2%	
8222 Fork-lift truck drivers	4,300	0.9%	
8229 Mobile machine drivers and operatives n.e.c.4	3,700	0.8%	
9111 Farm workers	6,200	1.3%	
9134 Packers, bottlers, canners and fillers	5,500	1.2%	
9251 Shelf fillers	4,800	1.0%	
9260 Elementary storage occupations	13,700	2.9%	
1161 Managers and directors in transport and distribution	-		
1162 Managers and directors in storage and warehousing	-		
3511 Air traffic controllers	-		
8213 Bus and coach drivers	5,700	1.2%	
5242 Telecommunications engineers	4,400	0.9%	
8122 Coal mine operatives	-		
8125 Metal working machine operatives	5,100	1.1%	
9235 Refuse and salvage occupations	2,100	0.4%	
1150 Financial institution managers and directors	-		
1255 Waste disposal and environmental services managers	-		
2412 Barristers and judges	-		
2413 Solicitors	-		
2419 Legal professionals n.e.c.4	-		
2444 Clergy	2,200	0.5%	
2471 Journalists, newspaper and periodical editors	2,100	0.4%	
3313 Fire service officers (watch manager and below)	2,800	0.6%	
3520 Legal associate professionals	4,200	0.9%	
4123 Bank and post office clerks	4,000	0.8%	
6148 Undertakers, mortuary and crematorium assistants	1,100	0.2%	
9211 Postal workers, mail sorters, messengers and couriers	6,800	1.4%	
3561 Public services associate professionals	3,400	0.7%	
4112 National government administrative occupations	11,200	2.4%	
4113 Local government administrative occupations	7,400	1.6%	
4114 Officers of non-governmental organisations	2,100	0.4%	
Grouped Occupations to achieve minimum sample size	Number of workers		
2215 Dental practitioners	1200	0.3%	
2216 Veterinarians			
2223 Speech and language therapists	1400	0.3%	
6147 Care escorts			
8143 Rail construction and maintenance operatives	1400	0.3%	
8231 Train and tram drivers			
2443 Probation officers	1600	0.3%	
3315 Police community support officers			
2214 Ophthalmic opticians	1200	0.3%	
3216 Dispensing opticians			
8129 Plant and machine operatives n.e.c.4			
8121 Paper and wood machine operatives	2700	0.6%	
8127 Printing machine assistants			
8232 Marine and waterways transport operatives			
8233 Air transport operatives	2600	0.5%	
8234 Rail transport operatives			
8239 Other drivers and transport operatives n.e.c.4			
8124 Energy plant operatives			
8126 Water and sewerage plant operatives	1900	0.4%	
8123 Quarry workers and related operatives			
5433 Fishmongers and poultry dressers			
8223 Agricultural machinery drivers	1100	0.2%	
9119 Fishing and other elementary agriculture occupations n.e.c.			
3512 Aircraft pilots and flight engineers	1200	0.3%	
3513 Ship and hovercraft officers			
Total	473,400		

Source: Annual Population Survey

Note:

We have been unable to match a number of the key worker description to Standard Occupation Classification (SOC) codes. For example, it is not possible to disaggregate cleaners or caterers who work specifically in Health and Social care. Where we have not been able to directly match a SOC, we have not included an estimate. This is consistent with how DfE are producing their estimates.