

## **LLAKES Research Paper 67**

### **Schoolwork in lockdown: new evidence on the epidemic of educational poverty.**

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## **Executive Summary.**

The closure of schools, and their only-partial re-opening, constitute a potential threat to the educational development of a generation of children. Since only a few among key workers' children have been at school during the pandemic, it is important for policy-makers to understand how much mitigating schoolwork has been taking place in homes across the country. This report uses new, high-quality data undertaken one month into lockdown, to try to answer that question, and to examine how much support was being given.

It finds that the average amount of schoolwork being done at home, according to parents and family members, has been very low:

- Children locked down at home in the UK spent an average of only 2.5 hours each day doing schoolwork. This figure is about half that suggested by a previous survey, suggesting that learning losses are much greater than feared.
- Most homework consisted of assignments, worksheets and watching videos. On average children were given two such pieces of homework a day.
- The extent of online lessons provision in state schools was minimal: 71 percent of state school children received no or less than one daily online lessons.

However, as earlier surveys have found, the extent of school provision for homes varied substantially. One fifth of pupils – over two million children -- did no schoolwork at home, or less than an hour a day. Only 17 percent put in more than four hours a day . The inequality between regions and social groups was substantial.

- Offline schoolwork is lowest in the Northeast of England, where the proportion receiving four or more daily pieces is just 9 percent, compared with the country-wide average of 20 percent. In the Southeast region, 28 percent of children are receiving four or more pieces of offline schoolwork per day.
- The proportion of children in receipt of free school meals who spent more than four hours on schoolwork was 11 percent, as compared with 19 percent among those not eligible.
- 31 percent of private schools provided four or more live online lessons daily, as compared with just 6 percent in state schools. Support from teachers checking private

school pupils' work was strong, and virtually all private school children (97 percent) had access to a computer at home.

- One in five of those on free school meals had no access to a computer at home.
- Asian children were being given more offline schoolwork, but took the same amount of time on schoolwork as other children.
- 20 percent of girls put in four or more hours on schoolwork during lockdown, as compared with 14 percent of boys.

The report concludes by reinforcing calls for government to give education a much greater priority in the management of the pandemic response, and for this response to include a focus on regional disparities.

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During lockdown school children in the UK, apart from a minority of designated ‘key workers’, have experienced what Robert Halfon MP, Chair of Parliament’s Education Select Committee, refers to as an ‘epidemic of educational poverty’. By June 4th, when some though not all English primary schools re-opened for pupils in reception and year 6, pupils had already been at home since the final week of March, losing nearly nine weeks of school time. With the announcement on June 9<sup>th</sup> that primary schools would not be required to return before the summer break, while secondary schools would not be fully opened until September at least, the medium-term consequences for the COVID generation of schoolchildren look potentially devastating. A learning deficit on this scale will lead to highly significant reductions in educational development, according to solid evidence from Britain and elsewhere.<sup>1</sup>

To mitigate the harm, schools have been providing online and offline lessons, course work and other learning materials. If policy over the coming months is to address the educational issues to which the loss of school time gives rise, it is essential to understand as well as possible the extent to which the provision of schoolwork for completing at home may be making up for the missing school time.

According to a survey carried out at the beginning of May,<sup>2</sup> ‘primary and secondary students are each spending about 5 hours a day on average on home learning’. That sounds like a significant amount of learning, not too distant from the normal amount of instruction for a pre-pandemic school day. Yet this average includes learning activities separate from schoolwork such as, for primary school children, reading. Moreover, as the authors note, the ‘5 hours’ estimate overstates the time spent on learning and reading, because doing some learning activity during a one-hour timeslot does not guarantee that the activity took place for anything like a whole hour. How much less, however, is unknown.

This report uses new data, drawn from a high-quality survey: the UK Household Longitudinal Study (UKHLS). According to this data, even most of the children of key workers<sup>3</sup> were absent from school during the last week of April, more than a month after the start of lockdown. Thus, unlike the loss of life, jobs and income, and several other economic and social effects of the pandemic, the loss of schooling impinges directly and without favour on almost all of the

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<sup>1</sup> Burgess and Vignoles (2020).; Eyles et al (2020).

<sup>2</sup> Andrew et al. (2020).

<sup>3</sup> Children with at least one parent or carer who are identified as critical workers by the government can send their children to school.

country's children. What potentially makes the experience unequal, however, is that some locked-down children may be receiving far less mitigating schoolwork than others, and less help with that schoolwork from their families.

[Andrew et al. \(2020\)](#) show convincingly that the home learning activities have been notably more intensive among more affluent families, and for some disadvantaged children the lockdown learning experience appears to be largely minimal. The inequality by family resources extends both to the amount of time spent learning, and to the resources available for assisting that learning.

This report adds to the evidence building up, looking in particular at how schoolwork provision and support for locked-down pupils varies across UK regions and nations, and according to school type, eligibility for free school meals, gender and ethnicity.

The report addresses two main questions.

- How much schoolwork is being carried out at home by children in lockdown, and how does this vary across the country and between socio-economic groups?
- How much help is provided to children either by the school or by family members, and how does that vary across the country and between socio-economic groups?

### **The UKHLS Covid Survey Data.**

The UKHLS is a long-standing panel of households followed annually since 2010. The survey is of high quality, drawn from the UK population using clustered random sampling methods. The data comes from the first month of an online COVID-oriented survey of all household panel members<sup>4</sup>, undertaken in the last two weeks of April, which included a module of questions on pupils' schoolwork as related by their parents. The response rate for the COVID survey was 42%. This report focuses on the sample of 4,559 children from these households about whom partial or complete information was collected from their parents and other household members. Some information on the children's parents is obtained from the COVID survey, and some from the previous (that is, the 9<sup>th</sup>) annual wave of the longitudinal survey. The

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<sup>4</sup> University of Essex, Institute for Social and Economic Research. (2020). Understanding Society: COVID-19 Study, 2020. [data collection]. 1st Edition. UK Data Service. SN: 8644, 10.5255/UKDA-SN-8644-1.

children and adults responding to the 9<sup>th</sup> wave do not overlap completely with those in the COVID survey (which includes respondents from earlier waves), and hence the sample size varies between tabulations. To deliver the correct population-level estimates, the tables of findings utilise the provided weights (computed as the inverse probability of selection into the sample, using both the COVID response rates and all previous waves' weights).<sup>5</sup>

## **Findings 1: the Volume of Schoolwork.**

### ***a) The large extent of our children's loss.***

Most schoolwork for children during lockdown has consisted of offline work, such as worksheets, assignments, watching videos. On average, children were given 2.0 pieces of offline school work for each school day, at the end of April. However, more than one in four children (27 percent, or approximately 2.7 million children UK-wide)<sup>6</sup> had no offline schoolwork or less than one piece (see Table 1, top line).

Online (that is, live) lessons and meetings between teachers and pupils were much less common. The average number of such lessons was just 0.17; and 71 percent of children received none or less than one per day (Table 2, top line).

In all, therefore, including both offline and online, the children had just over 2 pieces of schoolwork.

Each piece appears on average to have taken some time to carry out. The children spent on average about 2.5 hours per day doing either offline or online schoolwork. One fifth of children did no schoolwork at home, or less than an hour a day. That equates to approximately two million school children across the UK. Only 17 percent (approximately 1.8 million children) put in more than four hours a day (Table 3, top line).<sup>7</sup>

To put these findings into perspective, it should be noted that a school day for most children lasts between 6 and 7 hours. While not all of that time is devoted to teaching, by comparison the average time children have been spending on their schoolwork at home during lockdown

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<sup>5</sup> Understanding Society COVID-19 USER GUIDE, p18.

<sup>6</sup> This extrapolation is based on official school pupil numbers in 2019. Official numbers will have increased a little by 2020; while some in years 11 and 13 may have been deemed not at school in light of COVID driven exams cancellations.

<sup>7</sup> Footnote 6 applies here too.

has been at most a half of what they would normally spend (pre-lockdown) in a classroom, lab or assembly, or doing regular homework.

Adding to this highly negative evidence about the costs of school closure that are being born by the current generation of children, it may be recalled that, for most children, the time spent on schoolwork at home is by no means an adequate substitute for being directly taught by qualified teachers in school alongside their peers.

***b) The losses vary between groups of children, and across the country.***

*Regional Variation.*

Figures 1 to 3 show how much the provision of schoolwork varies.

The provision of offline schoolwork (Figure 1 and Table 1) in the survey period was considerably more prevalent in London, the South and the East of England, and in Northern Ireland than elsewhere in the UK. In the Southeast region, for example, 28 percent of children were receiving four or more pieces of offline schoolwork per day, compared with the country-wide average of 20 percent.

At the other extreme, offline schoolwork was lowest in the Northeast of England, where the proportion receiving four or more daily pieces is just 9 percent.

London is also where online teaching was most common, with one in eight children (12.5 percent) there receiving four or more online lessons or meetings daily, as compared with the country-wide average of 7 percent. The top rate of online provision was especially scarce in Wales, where the proportion is just 2 percent.

Finally, it is again in London, the South and the East of England and in Northern Ireland where the children were spending the most time on their school work.

This range of provision across regions has no obvious explanation in terms of the composition and education stage of children; it would appear to be down to the variation in schools' policies between regions.

*Disadvantaged Children*

A common indicator is used as the measure of disadvantage: whether a child is eligible for free school meals.

Eligible children appear to be additionally handicapped during lockdown. The proportion of those eligible receiving four or more pieces of offline schoolwork was 15 percent as compared with 21 percent for those not eligible. This difference is again reflected in the proportions spending more than four hours on schoolwork: 11 percent for those on free school meals, 19 percent among those not eligible.

### *Private Schools*

Schoolwork provision is expected to be greater in private schools where parents pay for such provision. Indeed, if a private school were to provide no or minimal schoolwork, it is questionable how long the school could or should continue to charge its fees, given the extent of parental pressure, and the threats of withholding payment or of legal action. Previous surveys have confirmed this difference.<sup>8</sup>

In the UKHLS COVID survey the largest gap was in the provision of online lessons and meetings: 31 percent of private schools provided four or more lessons daily, as compared with just 6 percent in state schools.<sup>9</sup> Private schools also provided more offline work: some 31 percent provided four or more pieces, as compared with 22 percent in state schools.

The time difference reflects these gaps. In a half of private schools the pupils spent 4 or more hours per day on schoolwork, as opposed to just 18 percent of state schools.

### *Ethnicity*

The provision of schoolwork can differ across ethnic groups. This variation is expected to arise from the range of schools' policies, rather than any discrimination or differentiation between children within schools.

Asian children are found to have received more offline schoolwork, and somewhat more online schoolwork than other children. However, these differences do not translate into any major differences in the time spent on homework: for that, the differences are small and statistically insignificant.

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<sup>8</sup> [Andrew et al. \(2020\)](#).

<sup>9</sup> The type of school is obtained from the previous main survey wave, so there will be a small number of inaccuracies where children changed school sector in the previous year.



## *Gender*

Parents report a little higher provision of offline schoolwork for girls than they do for boys: thus the proportion given four or more pieces is 22 percent for girls, 18 percent for boys. This sex difference seems unlikely to reflect school policies; and since there are few single sex schools outside the private sector it is unlikely to reflect differences in the sex composition of school populations. Instead, it might reflect parents' perceptions of their children's schoolwork.

The time spent also differs: 20 percent of girls put in four or more hours, as compared with 14 percent of boys. This sex difference is true of homework in normal times.

## **Findings 2: Help with Schoolwork.**

For online and offline lessons and schoolwork to be most effective, they need to be supported by schools and families. Assignments need to be checked by teachers, parents should try to help their children (especially at early stages), and computers need to be provided to facilitate both offline and online activities. Additional learning resources, such as educational apps, online tutorials, website subscriptions or exercise books, or online tutoring -- whether for free or, in some cases, paid for -- can also help. To what extent were children receiving this support in the last two weeks of April?

The first important indication of help is the extent to which teachers check children's school work. An index is computed, ranging from 0 (meaning none) to 1 (meaning all of it). The average response lies between 'less than half' and 'half or more'. Second, the survey asks family members how much time they spent helping each child. On average family members, chiefly parents, contributed 2.4 hours to helping their children's schoolwork. A second index is created, also ranging from 0 to 1 -- with 1 meaning 5 or more hours. Third, respondents were asked if each child used additional learning materials. Some 6 in 10 children did indeed use extra materials. Finally, the survey asked whether each child has access to a computer, laptop or tablet to do schoolwork at home. It turns out that nine out of ten children do have access. To measure the overall spread of schoolwork support these four indicators of support are averaged, generating an overall support index which also ranged from 0 to 1.

The results are as follows:

- From Table 4, it is seen that the overall support for children’s homework was at similar levels across most of the country, but lower in the North East of England than elsewhere.
- A large proportion (20 percent) of those on free school meals crucially had no access to a computer at home . This compares with 7 percent for other children. The lack of a computer is likely to considerably harm children’s ability to do schoolwork at home, submit it and have it checked, and this is reflected in a second gap, with free school meal children being less likely to have had their work checked by a teacher.
- Against this, free school meal pupils received more help from their parents or a family member than did other children. A possible reason is that families with children on free school meals may be more likely to have non-employed adults with the available time. Combining all components of help in the overall index shows no large difference between those on free school meals and those who are not (Figure 4).
- Support from teachers checking pupils’ work was especially strong in private schools, and their overall index of support was somewhat greater (Figure 4). Virtually all (97 percent) had access to a computer.
- There were similar levels of support for boys and girls, and across most ethnic groups. However, a small proportion of the sample whose parents were of mixed ethnicity received less support, in terms of access to a computer or to additional learning resources, and of having their work checked by a teacher.

## **Schools Policy**

The new evidence in this report shows that the extent to which schoolwork being carried out at home has been mitigating the loss of schooling is considerably less than previously thought, and that the costs in terms of learning loss are therefore greater than feared.

To this pessimistic picture, the report adds further dimensions to the additional inequality being generated during the pandemic: the regional inequalities, and the deficits among state schools in the provision of online teaching, as compared with private schools.

The evidence here suggests that special attention should be paid to the low provision in the North East; indeed, it would be a notable improvement if the provision of offline schoolwork

in all parts of the UK could at least be increased up to the level provided in Northern Ireland and much of southern England. The current regional disparity can only serve to widen existing regional divides.

The evidence also adds to the inequalities picture drawn by other commentators: the response to the pandemic is tragically adding to existing disparities.<sup>10</sup> Those on free school meals have been spending less time on schoolwork at home and have less access to computers and less checking of their work by their teachers. Private schools have used their much greater resources to deliver for parents by devoting more attention to online teaching, while state school children have had little direct live teaching, and have been assigned less schoolwork.

Several educational experts and advisory groups have called for urgent action on schools and schoolwork, drawing attention to the significance of the losses for children's educational development. Even early on in lockdown, the potential consequences have been anticipated. Policies advocated include providing funding and assistance to ensure all children have access to a computer and can benefit from online learning; providing support to schools and teachers for developing online lessons; distributing vouchers for free private tuition for disadvantaged children, streamlining the application process; and focusing resources on younger disadvantaged children. Several have pointed to the need to devote substantial resources to educational catch-up once schools are fully re-opened, including future summer holidays tuition for those who have been most disadvantaged in their learning by the lockdown, and setting up a volunteer task force of unemployed graduates to provide additional home tutoring.<sup>11</sup>

Educational policy advocates recognise that there are limits to what educational policy on its own can achieve to reduce these losses during lockdown. One significant constraint on schoolwork at home is that those children in more crowded living conditions may not have serviceable space to study undisturbed at home, even when computers are available. Some families are less able to provide quality home schooling or have little time spare from caring or working responsibilities to help with school work. And while getting children back into school as soon as possible is evidently desirable, many parents and teachers are

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<sup>10</sup> <https://www.mixcloud.com/PSPR/private-school-policy-reform-podcast-coronavirus-shutdown/>.

<sup>11</sup> Andrew et al. (2020); Burgess and Vignoles (2020); Montacute (2020); Elliot Major and Machin (2020); Education Endowment Foundation (2020); Children's Commissioner (2020).

understandably wary of the potential health risks despite expert assurances and the government's COVID response policies. Diminished general trust in government has many hidden consequences.

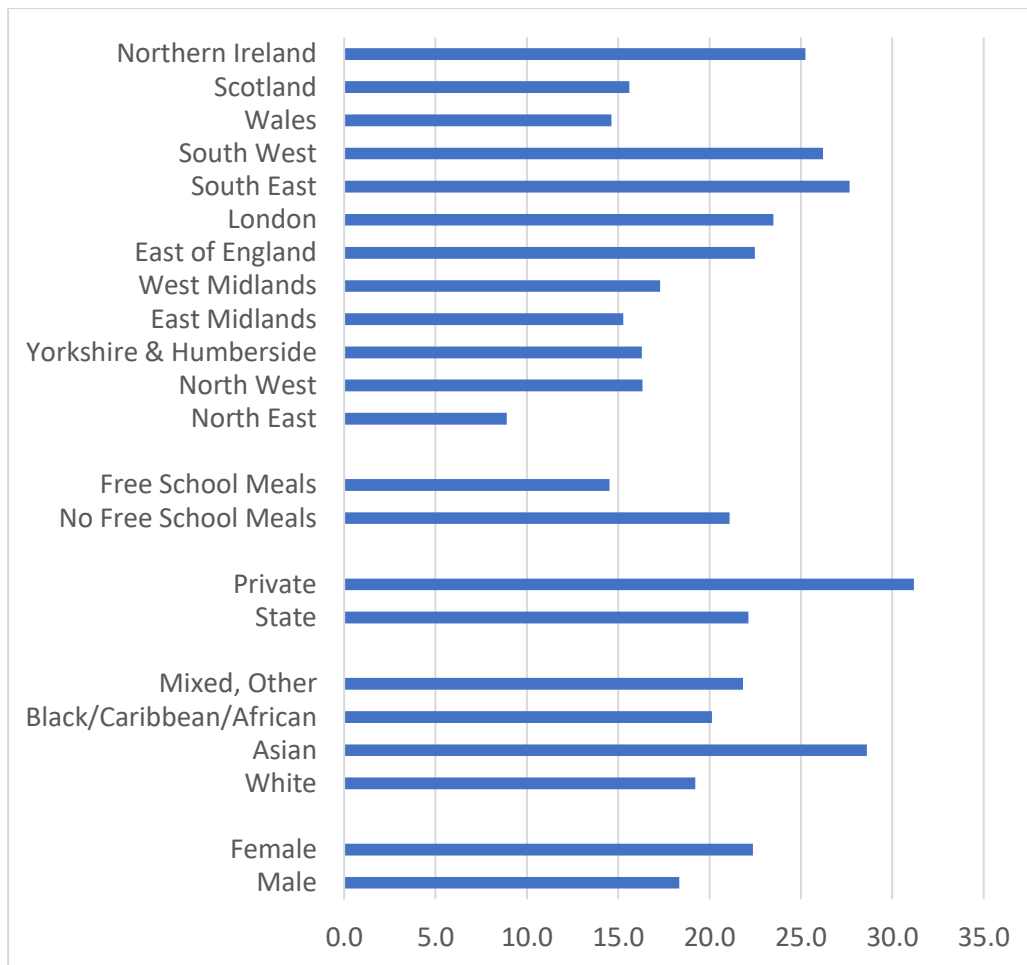
Notwithstanding this realism, the calls being made in mid-June by, among others, M.P. Robert Halfon for a phased opening of schools, and for a strategic plan to reduce the learning losses and assist catch-up, are given yet greater urgency by the severity of the learning deficits revealed in this new data. At the same time, the Children's Commissioner Anne Longfield has also called for schooling to be treated more seriously, that indeed it should be the number one priority. Without that investment, the risk is that 'childhood is just going to be furloughed for months'. She points to the strange set of values revealed by the announcement of plans to open restaurants, pubs and theme parks ahead of the re-opening of schools. She asks that the ingenuity and resources that have been applied to shoring up employment and the economy should now be applied to a strategically planned, phased return to school for most or all children.<sup>12</sup>

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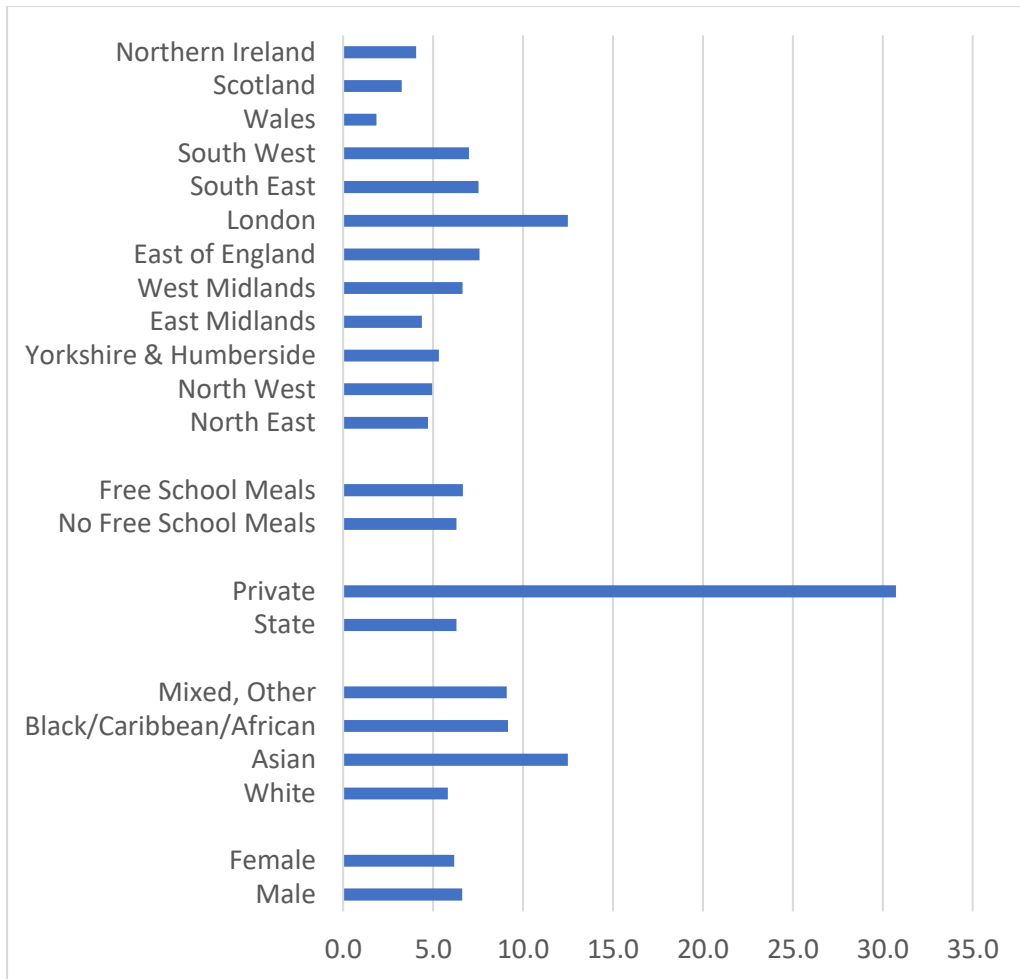
<sup>12</sup> Today Programme, BBC Radio 4, 8.10am, 9<sup>th</sup> June; also see [Children's Commissioner \(2020\)](#).

**Figure 1. Percent of Lockdown Pupils Receiving Four or More Pieces of Offline Homework Per Day**



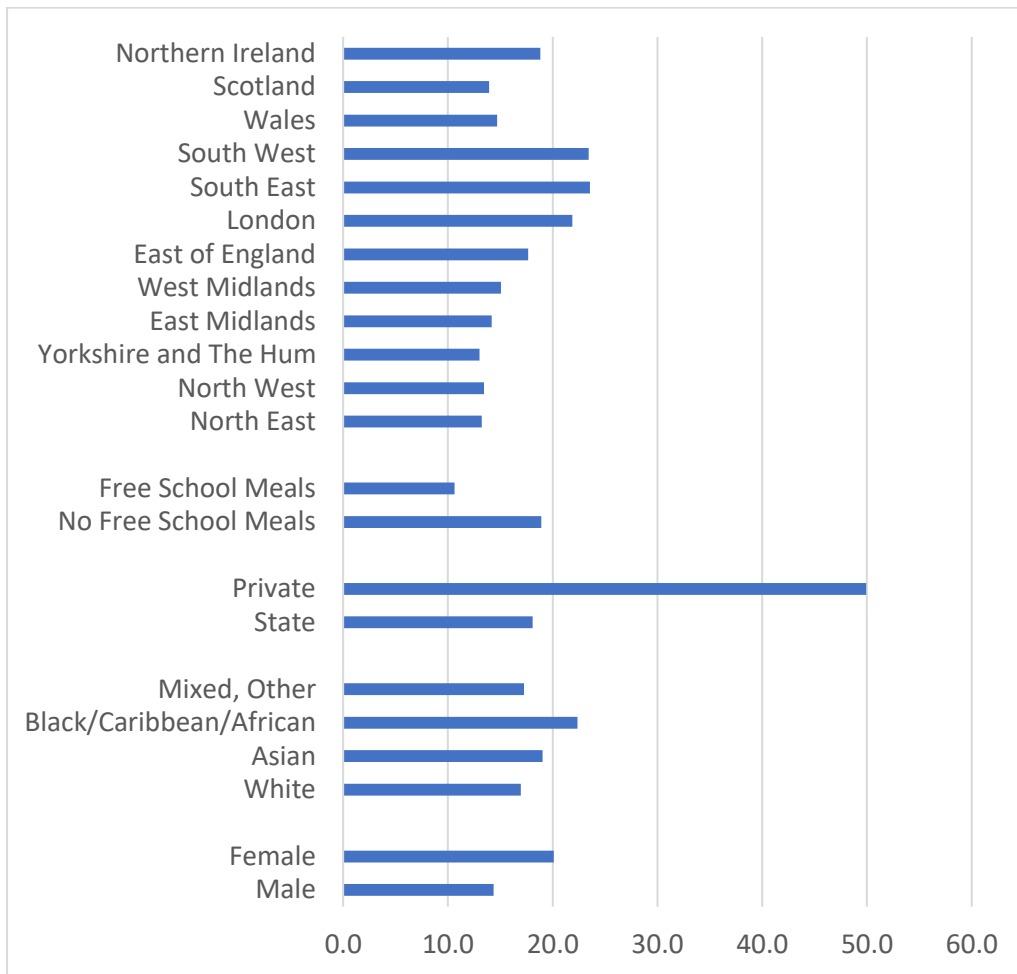
Source: Table 1.

**Figure 2. Percent of Lockdown Pupils Receiving Four or More Pieces of Online Homework Per Day**



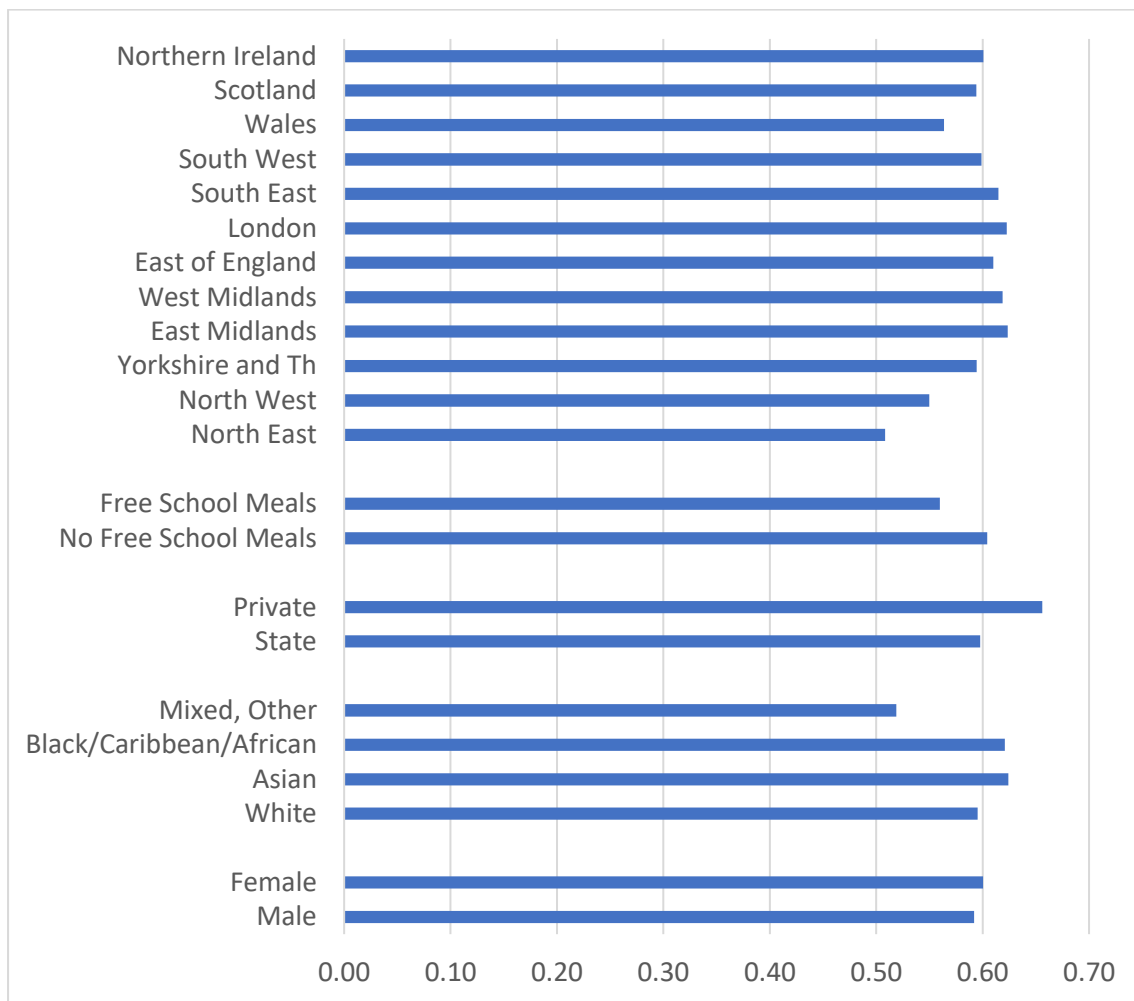
Source: Table 2

**Figure 3. Percent of Lockdown Pupils Spending Four or More Hours on Homework Per Day**



Source: Table 3.

**Figure 4. Help With Schoolwork: Summary Index<sup>a</sup>.**



Source: Table 4.

a. The summary index averages the measures of the extent of teacher checks, parental help, provision of additional materials, and access to a computer. It is standardised to have a theoretical range from 0 to 1, where 1 would mean access to computers and to additional tutorial materials, 5 or more hours of parental help, and having all schoolwork checked by teachers; while 0 would mean no access to computers or materials, no parental help, and no schoolwork checked. See also notes to Table 4.



**Table 1. Number of Offline Lessons Per Day\***

	None or less than 1 (%)	1 to 3 (%)	4 or more (%)
All (average: 2.0)	26.7	53.5	19.9
Male	28.2	53.5	18.3
Female	24.9	52.8	22.4
State	24.8	53.1	22.1
Private	19.6	49.2	31.2
No Free School Meals	26.7	52.3	21.1
Free School Meals	26.8	58.7	14.5
<i>Region/nation</i>			
North East	42.1	49.0	8.9
North West	31.3	52.3	16.3
Yorkshire and Humberside	30.0	53.7	16.3
East Midlands	27.5	57.2	15.3
West Midlands	27.7	55.0	17.3
East of England	25.8	51.7	22.5
London	23.2	53.3	23.5
South East	18.4	54.0	27.7
South West	22.9	50.9	26.2
Wales	29.9	55.5	14.6
Scotland	29.1	55.3	15.6
Northern Ireland	20.3	54.4	25.2

\*Lessons such as worksheets, assignments, watching videos.

Note: Sample size differs by categorisation according to data availability

**Table 2 Number of Lessons of Online Schoolwork\***

	None or less than 1 (%)	1 to 3 (%)	4 or more (%)
All (average 0.17)	71.3	22.3	6.4
Male	70.3	23.1	6.6
Female	72.6	21.2	6.2
State	71.1	22.6	6.3
Private	27.8	41.5	30.7
No Free School Meals	71.5	22.2	6.3
Free School Meals	70.5	22.9	6.7
<i>Region/Nation</i>			
North East	69.4	25.9	4.7
North West	74.3	20.7	5.0
Yorkshire and Humberside	77.6	17.1	5.3
East Midlands	77.5	18.1	4.4
West Midlands	71.1	22.3	6.6
East of England	71.5	20.9	7.6
London	65.2	22.3	12.5
South East	67.7	24.8	7.5
South West	69.8	23.2	7.0
Wales	72.5	25.6	1.9
Scotland	71.6	25.2	3.3
Northern Ireland	66.1	29.9	4.1

\*Live or real-time lessons or meetings.

Note: Sample size differs by categorisation according to data availability

**Table 3 Hours Spent on Schoolwork**

	None/less than one (%)	Some (1 to 4) (%)	4 or more (%)
All (average 2.5)	19.6	62.9	17.5
Male	20.1	65.4	14.5
Female	18.5	61.1	20.4
State	17.1	64.6	18.3
Private	8.6	41.5	49.9
No Free School Meals	18.4	62.5	19.1
Free School Meals	24.9	64.3	10.8
<i>Region/Nation</i>			
North East	20.2	66.4	13.5
North West	19.8	66.4	13.8
Yorkshire and Humberside	21.1	65.6	13.3
East Midlands	21.2	64.6	14.2
West Midlands	20.9	64.0	15.1
East of England	19.0	63.2	17.9
London	18.4	59.5	22.0
South East	15.7	60.7	23.6
South West	17.4	58.9	23.7
Wales	21.6	63.4	15.0
Scotland	26.0	59.9	14.1
Northern Ireland	16.3	64.8	18.9

Note: Sample size differs by categorisation according to data availability

**Table 4 Help With Schoolwork**

	<b>Teacher Checks Homework<sup>a</sup></b>	<b>Parental Help<sup>b</sup></b>	<b>Additional Learning Resources<sup>c</sup></b>	<b>Computer Access<sup>d</sup></b>	<b>Summary Help Index<sup>e</sup></b>
All	0.53	0.32	0.60	0.91	0.60
Male	0.51	0.33	0.61	0.89	0.59
Female	0.54	0.31	0.60	0.92	0.60
White	0.53	0.32	0.60	0.91	0.60
Asian	0.61	0.32	0.60	0.90	0.62
Black/Caribbean/African	0.54	0.33	0.65	0.95	0.62
Mixed, Other	0.40	0.29	0.52	0.79	0.52
State	0.53	0.31	0.60	0.92	0.60
Private	0.76	0.28	0.57	0.97	0.66
No Free School Meals	0.56	0.30	0.59	0.93	0.60
Free School Meals	0.40	0.39	0.64	0.80	0.56
North East	0.39	0.29	0.50	0.82	0.51
North West	0.51	0.31	0.50	0.87	0.55
Yorkshire and Th	0.50	0.34	0.64	0.86	0.59
East Midlands	0.54	0.34	0.67	0.90	0.62
West Midlands	0.47	0.31	0.74	0.94	0.62
East of England	0.55	0.33	0.61	0.90	0.61
London	0.58	0.32	0.61	0.91	0.62
South East	0.57	0.32	0.64	0.93	0.61
South West	0.55	0.30	0.60	0.94	0.60
Wales	0.51	0.31	0.49	0.90	0.56
Scotland	0.54	0.30	0.55	0.94	0.59
Northern Ireland	0.57	0.29	0.58	0.93	0.60

a. Proportion of schoolwork checked by teachers. (None/less than half/half or more/all of it; standardised to 0 to 1 scale).

b. Time spent by family members actively helping child with schoolwork. (None/Less than 1 hr/1-2 hrs/2-3 hrs/ 3-4 hrs/ 4-5 hrs/ 5 or more hrs; standardised to 0 to 1 scale).

c. Child has additional learning resources such as online tutoring, educational apps, website subscriptions or exercise books? (0/1)

d. Whether child has access to a computer (0/1).

e. Average of all four help indicators.