Institute for Fiscal Studies

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# Family time use and home learning during the COVID-19 lockdown

Nuffield Foundation

UKRI Economic and Social Research Council

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# Foreword

The Nuffield Foundation is committed to funding research that investigates the various forms of educational disadvantage and vulnerability faced by children and young people at risk of falling behind in their learning. As such, we welcome this report, which considers the impact of the COVID-19 crisis not only on children's learning and development, but also on the wider economic and social well-being of children's families.

It should be of great concern that the most vulnerable children have been the least engaged in learning during the pandemic, adding to their disadvantage in a context in which socio-economic inequalities are widening further. This research provides valuable, real-time insight into the challenges parents have faced at different stages of lockdown when juggling work, childcare responsibilities and, in many cases, financial insecurity.

This report challenges national and local policymakers, and school leaders, to find coordinated strategies to mitigate the detrimental – and potentially long-lasting – effects of the COVID-19 lockdown on children and their families. Disparities in children's home learning environments are difficult to combat but should be a policy priority. The home is likely to continue to play a particularly strong role in children's development during the next academic year, as COVID-19 measures continue. This research has also shed light on more general concerns about domestic differences. The 'digital divide' is only one of many inequalities and one that is relatively easier to address than parents' ability to provide dedicated quiet space for their children, or to support their learning in other ways.

The report is a part of a series of outputs from a project running until 2022. The research team will continue to provide valuable insights into family life, exploring the impact on child outcomes and the extent to which the long-term impacts of the pandemic are being mitigated, and whether the disadvantage gap is closing – or widening. It is part of a portfolio of projects relating to COVID-19 projects that we are funding, which will improve understanding of the effects of the pandemic and the response to it in key areas of society.

**Josh Hillman**

Director of Education, the Nuffield Foundation

# Preface

The authors are grateful to the Nuffield Foundation for funding this work (grant EDO/FR-000022584). The Nuffield Foundation is an independent charitable trust with a mission to advance educational opportunity and social well-being. It funds research that informs social policy, primarily in Education, Welfare and Justice. It also provides opportunities for young people to develop skills and confidence in science and research. The Foundation is the founder and co-funder of the Nuffield Council on Bioethics, the Nuffield Family Justice Observatory and the Ada Lovelace Institute.

Almudena Sevilla thanks the European Research Council for funding her time through the PARENTIME project. Co-funding from the ESRC-funded Centre for the Microeconomic Analysis of Public Policy (ES/M010147/1) is gratefully acknowledged.

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# Executive summary

The COVID-19 school closures forced children and parents to make unprecedented changes to their daily routines. Including the summer holidays, most children will have had a five-and-a-half-month break from physically attending school by the time they returned in September. There has been considerable discussion of the challenges that home learning presents for some children, and the inequalities that it could lead to (Burgess and Vignoles, 2020; Education Endowment Foundation, 2020; Eyles, Gibbons and Montebruno, 2020).

In this report, we present analysis of some of the first data on children's lives during the lockdown and how home learning during the lockdown worked in practice. Between 29 April and 20 June 2020, we interviewed over 5,500 parents with at least one child entering Reception in September 2020 or a child in school aged 4–15. We asked parents about their employment circumstances, as well as how they and their children spent their time during a weekday. We also asked about the resources (both from their schools and at home) that school-age children had available for home learning. We collaborated with an online survey company to ensure that our respondents came from a mix of genders, regions, and social and economic backgrounds. We then reweighted our data to ensure that they are as representative as possible of families with school-aged children in England.

We start the report by providing more details about the data we use to conduct our analysis. In Chapter 3, we examine how the COVID-19 crisis has affected the economic circumstances of households with children. Then, in Chapter 4, we turn to analysing what the days looked like for parents during the lockdown, focusing on the challenges they faced when juggling work and childcare responsibilities. To put these results into perspective, we compare how parents' time use during the lockdown differed from the pre-COVID-19 period, drawing on the 2014–15 UK Time Use Survey. The rest of the report focuses on children and their home learning experiences. In Chapter 5, we describe children's time use and the activities that fill their learning time, again comparing these results to the pre-COVID-19 period where available. In Chapter 6, we complement this picture by examining the home learning environment and the resources children have received from their schools for home learning.

An important theme running throughout the report is that, while the COVID-19 crisis has affected all families with children, it has not affected them all equally. In almost all aspects of family life that we look at, we see important differences between households of different socio-economic status. In the concluding chapter, we reflect on these findings and their implications for the long-term impact that the unprecedented circumstances we have lived through over the past few months is likely to have for children's well-being and learning, and inequalities therein. We

end the report by drawing a few 'lessons for next time', as the prospect of a second wave and future lockdowns loom in the autumn.[1]

## Key findings

1 **COVID-19 has brought an unprecedented disruption to parents' working lives with important implications for families' economic circumstances.** Only around half of parents who were in work in February 2020 were still doing their job in May – others had been furloughed, quit, or lost their jobs permanently. Despite the income protection provided by policies such as the furlough scheme, a third of parents report that their monthly earnings have decreased since February 2020. These reductions in resources available to spend on children and the stress that comes with job losses create significant risks for children's well-being.

2 **These are trying times for parents. The lockdown made parents almost entirely responsible for childcare, leaving little time for leisure.** During the lockdown, both mothers and fathers were doing some childcare during an extra four hours each day. In 2014, some 70% of parents reported having leisure time at around 7pm, whereas during lockdown only 40% did. This left very little slack in parents' days, which could impair on parental well-being and negatively affect children's welfare.

3 **Primary and secondary school children spent an average of four and a half hours a day on home learning.** This includes time spent on online classes, other school work, private tutoring and other educational activities. This represents a 25% and 30% reduction in

[1] Initial findings based on data we collected between 29 April and 12 May 2020 were published in two IFS Briefing Notes late May 2020. The first of these investigated the experience of home learning during lockdown and parents' attitudes to the return to school (Andrew et al., 2020a). The second explored parents' time use and gender gaps in paid work and childcare during the lockdown (Andrew et al., 2020b). This report includes analysis similar to that presented in these two Briefing Notes (though using all the data collected), as well as new analysis based on the survey data and the 2014–15 UK Time Use Survey.

pre-COVID-19 learning time among primary and secondary school children, respectively.

4 **Socio-economic gaps in learning time during the lockdown are large and larger than before the lockdown, especially for primary school children.** Before the lockdown, learning time was fairly homogeneous among primary school children, but this changed during the lockdown: the richest third of primary school children spent about four and half hours per week more on learning than the poorest third of primary school children. Among secondary school children, there was a gap of 45 minutes a day in learning time between the richest and the poorest third of children before the lockdown. This gap is now 15 minutes larger.

5 **With home learning implemented suddenly and with little national or local guidance, schools offered dramatically different packages of support to their pupils.** Around half of primary schools, and nearly 60% of secondary schools, offered some active learning materials, such as online classes or online chats. But these resources were 37% (24%) more likely to be provided to the richest third of primary (secondary) school children than to the poorest third.

6 **Differences in schools' home learning packages are magnified by different resources at home.** Around one in eight children were either using a phone or had no device to access online schooling resources. Of even more concern, 22% of primary school children and 10% of those in secondary school did not have access to a dedicated study space at home.

7 **COVID-19 is likely to exacerbate inequalities in children's outcomes.** Inequalities in learning time and learning resources during the lockdown will be compounded by the fact that COVID-19 has caused children to lose the protective and safeguarding environment of schools. In these conditions, inequalities in family circumstances and home environments are likely to have even deeper consequences for inequalities in children's attainment and well-being than they would have otherwise.

8 **Many of the challenges to home learning – such as a lack of space at home – are difficult for policy to address. This makes it even more important that policymakers do act where they can to reduce inequalities and improve the home learning experience.** There are potentially enormous benefits to developing and sharing resources across schools (as the Oak National Academy is doing). These will both improve equity in access to home learning and free up teachers' time for providing more individualised instruction and supporting children in difficulty.

# 1. Introduction

On 20 March 2020, UK schools closed their gates to all but the children of essential workers and those deemed most vulnerable. The majority of children have, therefore, spent more than a full term out of school. Months out of school risk setting back children's learning and development. This is particularly concerning for children from disadvantaged backgrounds, who already achieve less well, on average, than their better-off classmates (Hutchinson, Reader and Akhal, 2020).

The transition to home learning was disruptive for virtually every child in England, at a time when their parents were also facing drastic changes. For most parents, school closures meant that school-aged children were at home, and requiring care and support with home learning, for at least an extra six hours a day. At the same time, many parents were newly working from home, while many key workers experienced additional pressures and risks in their work. Others lost or were forecast to lose their jobs permanently; many more stopped work temporarily. Many households faced reductions in family income with uncertainty around how permanent these would be.

How did families deal with this situation of drastic sudden changes to demands on their time and abilities, especially at a time when many were worrying or experiencing health and economic shocks? How did parents juggle work, childcare and other domestic responsibilities? What did children do with all that time at home? How much home learning was there and how was it implemented? Finally, what are the differences in the ways that poorer and better-off families coped?

All of these questions are important both for gaining a better understanding of experiences of families during the lockdown and – combined with existing evidence on drivers of children's development and pre-crisis time use patterns – for considering what might be the longer-term effects of this crisis on children's learning and the existing inequalities between them, as well as what can policy do to mitigate these in the shorter and longer term.

In this report, in order to address the questions set out above, we utilise novel newly collected data on time use during the lockdown for over 5,500 families in England with children, with a focus on capturing time use and, especially, activities undertaken and resources utilised for home learning. This survey, combined with time use data from other studies collected before lockdown, allows us to characterise the situation of families during lockdown, how it differs by family characteristics and how it has changed relative to pre-crisis. Existing evidence on how children's time use and the support that they receive affect their learning

provides an indication of how our findings might show the effects on children's outcomes over the medium and longer term, therefore indicating where there is likely to be an immediate need for a policy response.

Going forward, we plan to build on this work with analysis that focuses on establishing more directly how the lockdown and school closures have affected children's learning and socio-emotional well-being.

We start in Chapter 2 with an in-depth description of the novel data that we have collected. We then move on in Chapter 3 to look at employment and earnings of parents, in order to provide a picture of the types of time and financial resource constraints they may have been under while dealing with the demands of extra childcare and home learning. In Chapter 4, we discuss the day-to-day experiences of parents, especially when they were juggling work and childcare.

The remainder of the report focuses on children's experiences of lockdown. In Chapter 5, we describe time use during a typical day and how it compares to a typical pre-lockdown day, followed by a more detailed look at time spent on learning activities. In Chapter 6, we move away from time use and focus on the resources that children had access to, in order to support their learning, both home resources and those provided by their schools. Across the board, we start by presenting analysis for the whole sample and then we concentrate on differences by gender and socio-economic status. We bring the findings together in Chapter 7, contextualising these within the existing literature to suggest what they may mean for shorter- and longer-term effects of the crisis on children's learning and development.

# 2. Data sources

Most of the analysis presented in this report is based on unique data we collected during the COVID-19 lockdown. Our goal was to capture families' experiences during the first and strictest phase of the lockdown. Hence, we designed our survey focusing on parents' employment changes resulting from the pandemic, parents' and children's time use on typical weekdays, and children's home learning experiences. Collecting real-time rather than retrospective data on these experiences is crucial to ensure that we understand how school closures and social distancing restrictions affected children and their families, and how together they coped with the situation. Documenting these experiences in real time is not only important to inform short-term policy responses aimed at mitigating the effects of the crisis on households with children, but it will also likely prove invaluable to understand the medium- to long-term impacts of the crisis on children's outcomes.

In order to assess how parents' and children's lives changed during the lockdown compared with before the crisis, where possible and appropriate, in the report we also present statistics for the pre-lockdown period. To do so, we use a second data source, namely the 2014–15 UK Time Use Survey (UKTUS).

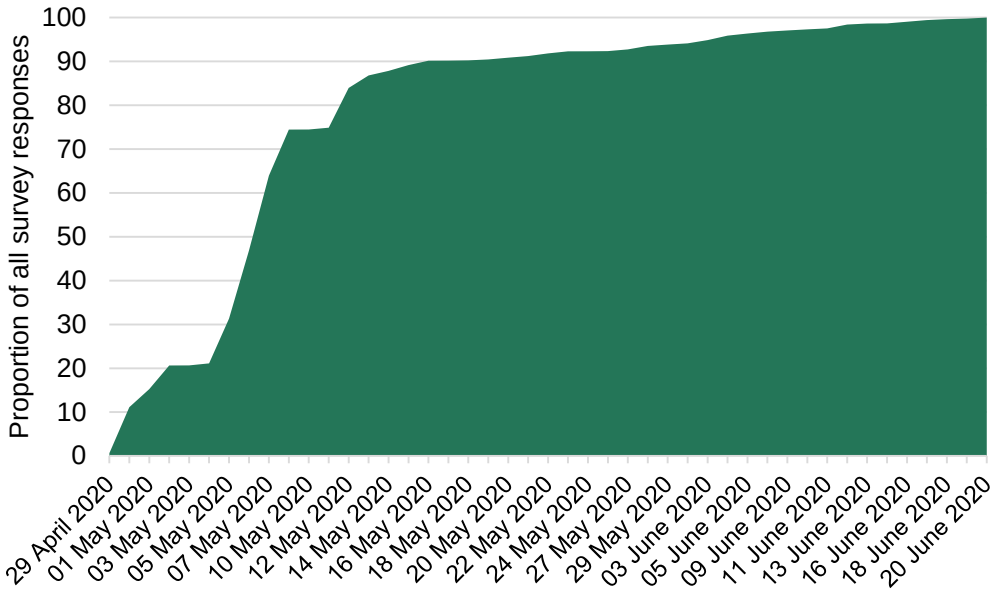
In this chapter, we describe these two data sources in turn and we discuss how we constructed weights to make our survey as representative as possible of families with school-aged children in England.

## 2.1 IFS–IoE survey of families' time use

### Sample

We surveyed 5,582 parents in England who lived with their children between 29 April and 20 June 2020. As Figure 2.1 shows, the vast majority (90%) of our respondents answered the survey before 15 May 2020. To be eligible for inclusion, parents had to be living with (at least one) child. We interviewed parents with children entering Reception in September 2020 and those with children in school in Reception and in Years 1, 4, 5, 8, 9 and 10. We focused on these year groups in order to maximise the sample size of children for whom we might be able to access post-lockdown educational results from the National Pupil Database within one to three years (educational attainment results are reported at the end of Reception and Years 2, 6 and 11, in the National Pupil Database).

**Figure 2.1. Data collection period**




## Survey content

Participants were recruited through a well-reputed online survey company and received a small payment in compensation for their time. We aimed for the survey to take around 20 minutes to complete. Median completion time was indeed 22 minutes.

The main aim of our survey was to collect detailed information on how families and children spent their time on a term-time weekday. We asked the surveyed parent and their partner to fill in an online diary of time use, telling us what activities they did during each hour of the day. We also asked the surveyed parent to fill in a similar diary about their child's time use (selecting one child at random in multi-child families), and we asked who the child was with during each time slot. Interviews were conducted on Tuesdays to Saturdays (excluding the days after Bank holidays) to ensure that the information refers to 'school' days.

We also collected detailed demographic and socio-economic information about the family, including the working status and income of the parents before and during the crisis. Finally, we complemented the survey with rich information about the types of home learning activities children were doing and the resources they had available for supporting their learning, including those provided by the school and the facilities at home. These data were only collected for children who were in school before the start of the lockdown.

In order to keep the survey a manageable length for families, we asked about time use in one-hour slots. This is a more basic approach to collection of time use data than the one adopted in specialised time use surveys, such as the UKTUS, which ask respondents to report what they are doing over the course of 24 hours against a more detailed list of activities, and much more frequently. However, this was the best that could be done as part of a 20 minute, online, *recall* time use survey.

Because these are wider than the 10-minute intervals used in the most detailed time use surveys, such as the UKTUS, we cannot say precisely how long respondents spent on a particular activity; respondents could report multiple activities during the hour, so the apparent number of hours might overstate how long the respondent spent on the activities in that category. Instead, we comment on the number of one-hour slots during which at least some of a particular activity is reported.

Another feature of our time use diaries is that the possible activities are much more broadly defined than they are in more detailed time use surveys. This was to keep the survey a manageable length for families and to make it easy for respondents to fill out the survey from their smart phone. The list of categories was slightly adjusted between children age 4–11, adolescents age 12–15, and adults. Box 2.1 reports the list of possible activities offered for each type of respondent.

### Box 2.1. Time use data in the IFS–IoE survey

**Diaries for adults** include the following options: sleeping/resting, personal care (e.g. eating, bathing), paid work away from home (including commuting), paid work at home, activities with child(ren), keeping an eye on and basic care for child(ren), housework and errands, leisure and exercising, volunteering and caring for others (excluding your children).

**Diaries for children aged 4–11** include the following options: sleeping/resting, personal care (e.g. eating, washing), at school or in childcare outside the home, learning at home (studying, home schooling including on technology), reading, screen time for fun, off-screen indoor play and hobbies, outdoor play, caring for others and housework.

**Diaries for children aged 12–15** include the following options: sleeping/resting, personal care (e.g. eating, washing), at school or in childcare outside the home, learning at home (studying, home schooling including on technology), at work (outside the home), screen time for fun (watching, browsing, playing, socialising), outdoor play, exercising indoors, outdoor leisure and socialising, housework and caring for others. Because older children are more independent than younger children, it may be harder for parents of older children to know what their child is doing in each hour of the day. We therefore offered parents of older children the option to answer ‘I don’t know’ (though it was never ticked by more than 3% of parents).

After asking which activity (activities) the child was doing in each hour of the day, we also asked who the child was with during this hour. Options included: no one (the child was alone), me (the survey respondent), my partner, paid help/childminder, another adult (in the household) and other (outside the household).

### Data quality checks

To ensure the data we collected are of the highest possible quality, we performed a number of checks and removed any poor-quality responses from the analysis. These checks included the following.

- Pattern or repetitive responses: if an individual selected the same one activity, for example, throughout a 24-hour day, we flagged their response and removed them from the analysis. We dropped 57 responses in this case.
- Rapid responses: if an individual responded extremely fast to the survey we took a closer look at their responses and removed them if they were of poor quality. This happened in four cases.
- Inconsistencies: we checked for inconsistencies, such as those between the parent and child diaries, to see whether time together matched up. If not, we would replace this information with missing values.
- Duplicate IDs: duplicates can occur if a respondent logs into the survey with several email accounts (most likely in order to be paid for taking the survey several times). We can identify those using the respondent's IP address. We removed 2,044 responses that we flagged as duplicates.

## 2.2 The 2014–15 UK Time Use Survey

To assess how the COVID-19 lockdown has affected parents and children's time use, we use an additional data source, the UKTUS, to draw comparable statistics for the pre-lockdown period (Gershuny and Sullivan, 2017). The UKTUS is a diary-based time use survey for a representative sample of 4,238 households across all four nations of the UK. The survey captures diary information for two randomly selected days of the week, one on a weekday and one on a weekend, for all household members aged 8 and above. Each respondent recorded what they were doing in each 10-minute slot of the day, as well as where and with whom. These data were then processed by the Centre for Time Use Research, which categorised each diary response into four-digit categories, which we then use to make their data comparable with our data.

## 2.3 Survey weights

In order to ensure that our survey was as representative as possible of the situation in England as a whole, we ensured that respondents with a wide variety of characteristics responded to the survey. We achieved this by starting the survey with a number of screening questions about the main respondent's gender, education, region, marital status, work status and the job they did. We also screened on whether the household had children in specific year groups, in order to increase the sample of children who would have test scores available in the National Pupil Database in the near future.

We achieved this by assigning quotas to reach for the survey, in terms of the main respondents' gender, education, employment and region of residence. However, as the survey was voluntary, we nevertheless saw some important differences between the average characteristics of survey respondents and their households, and the average characteristics of parents in England as a whole.

To examine the extent of these differences, we constructed a sample of respondents from the nationally representative 2019 Labour Force Survey (LFS) who were roughly equivalent to our population of interest: parents with at least one child between the ages of 2 and 15.[2] Columns 1 and 3 of Table 2.1 show means for this nationally representative sample and for our sample. We see that our sample systematically contains a greater number of higher earners and higher-educated individuals than does the LFS. Importantly, we also see that our unweighted sample contains a higher proportion of individuals who work in industries that have been locked down during the crisis.

So that our analysis is representative of the situation in England as a whole, we reweight our sample by key characteristics to ensure that it better matches the distribution of characteristics observed in the LFS. In particular, we reweight on: family structure, women's education, men's education, prior (pre-pandemic) employment, women's 2019 pre-tax earnings, men's 2019 pre-tax earnings, women's industry (particularly whether they work in an industry where more than 50% of jobs have been locked down), men's industry (ditto), women's occupation (particularly whether working from home is possible), men's occupation (ditto), and geographic region.[3] To do this, we pool our data with the LFS sample and use regression analysis to calculate appropriate weights. We truncate our weights at the 10th and 90th percentiles to prevent our analysis being overly sensitive to a few observations.

Column 2 of the table shows means for the reweighted sample. We see that the average characteristics of this reweighted sample are now very similar to the nationally representative LFS sample.

[2] The LFS only has information on children's ages in groups, meaning that we were not able to select households with children of the exact ages that would make them eligible for our survey.

[3] The share of jobs in an industry subject to the lockdown and the share of jobs in each occupation that can be done from home are calculated using the methods set out in Costa Dias et al. (2020).

**Table 2.1. Unweighted and reweighted means of sample characteristics compared with the nationally representative LFS sample**

| | IFS–IoE survey, unweighted | IFS–IoE survey, reweighted | Comparable LFS sample |
|---|---|---|---|
| Family structure | | | |
| Single mother | 0.184 | 0.244 | 0.222 |
| Single father | 0.079 | 0.022 | 0.017 |
| Couple | 0.737 | 0.734 | 0.761 |
| Women's education | | | |
| GCSEs or less | 0.265 | 0.339 | 0.367 |
| A levels | 0.310 | 0.262 | 0.249 |
| University degree | 0.425 | 0.398 | 0.384 |
| Men's education | | | |
| GCSEs or less | 0.306 | 0.376 | 0.416 |
| A levels | 0.259 | 0.230 | 0.229 |
| University degree | 0.435 | 0.393 | 0.354 |
| Single mothers' education[4] | | | |
| GCSEs or less | 0.358 | 0.441 | 0.495 |
| A levels | 0.423 | 0.308 | 0.272 |
| University degree | 0.219 | 0.251 | 0.233 |
| Pre-crisis employment | | | |
| Women | 0.728 | 0.752 | 0.745 |
| Men | 0.877 | 0.919 | 0.935 |
| Single mothers | 0.732 | 0.700 | 0.678 |

[4] We were careful to minimize the number of variables on which we reweighted the sample, in order to avoid overfitting. We decided not to reweight on single fathers' education because, even though our unweighted sample includes a relatively large proportion of single fathers, the proportion of single fathers in the overall population (and hence in our weighted survey sample) is very small, so that reweighting on their education would likely be inconsequential.

| | | | |
|---|---|---|---|
| Women's pre-crisis earnings[5] | | | |
| £0–£9,999 | 0.306 | 0.455 | 0.476 |
| £10,000–£24,999 | 0.427 | 0.290 | 0.285 |
| £25,000–£39,999 | 0.128 | 0.153 | 0.151 |
| £40,000+ | 0.139 | 0.102 | 0.089 |
| Men's pre-crisis earnings | | | |
| £0–£9,999 | 0.095 | 0.135 | 0.131 |
| £10,000–£24,999 | 0.338 | 0.211 | 0.206 |
| £25,000–£39,999 | 0.251 | 0.305 | 0.301 |
| £40,000–£59,999 | 0.163 | 0.187 | 0.188 |
| £60,000+ | 0.153 | 0.162 | 0.174 |
| Single mothers' pre-crisis earnings | | | |
| £0–£9,999 | 0.300 | 0.556 | 0.594 |
| £10,000–£24,999 | 0.521 | 0.283 | 0.256 |
| £25,000–£39,999 | 0.084 | 0.122 | 0.115 |
| £40,000+ | 0.094 | 0.039 | 0.035 |
| Working in industry where 50%+ of jobs have been locked down | | | |
| Women | 0.330 | 0.255 | 0.231 |
| Men | 0.331 | 0.287 | 0.264 |
| Single mothers | 0.394 | 0.323 | 0.282 |
| Working in an occupation where 0%–15% of workers report being able work from home | | | |
| Women | 0.314 | 0.327 | 0.327 |
| Men | 0.347 | 0.351 | 0.362 |
| Single mothers | 0.351 | 0.379 | 0.392 |

[5] We construct four categories for female pre-crisis earnings and five categories for male pre-crisis earnings because there are fewer female high earners and a fifth category (£60,000+) would have too few observations.

| | | | |
|---|---|---|---|
| Working in an occupation where 15.1%–75% of workers report being able to work from home | | | |
| Women | 0.211 | 0.217 | 0.237 |
| Men | 0.271 | 0.212 | 0.192 |
| Single mothers | 0.228 | 0.272 | 0.300 |
| Working in an occupation where 75.1%–100% of workers report being able to work from home | | | |
| Women | 0.474 | 0.456 | 0.436 |
| Men | 0.382 | 0.437 | 0.445 |
| Single mothers | 0.421 | 0.349 | 0.309 |
| Region | | | |
| Greater London | 0.184 | 0.125 | 0.118 |
| South East | 0.148 | 0.211 | 0.235 |
| South West | 0.102 | 0.104 | 0.097 |
| West Midlands | 0.109 | 0.111 | 0.107 |
| North West | 0.145 | 0.143 | 0.136 |
| North East | 0.072 | 0.065 | 0.061 |
| Yorkshire and the | 0.091 | 0.105 | 0.113 |
| East Midlands | 0.079 | 0.087 | 0.092 |
| East of England | 0.071 | 0.050 | 0.041 |

# 3. Families' economic circumstances

## 3.1 Effect of COVID-19 on parents' employment and earnings

COVID-19 has brought an unprecedented disruption to working patterns, changing who is in paid work, and where, when and how they are working. Of the parents in our (reweighted) sample who were doing some paid work during February 2020, only 53% were still engaging in paid work at the time of the survey (at the end of April), 14% were no longer working for pay, having lost their job permanently (through being laid off, being fired or quitting), while another 33% of parents were no longer working for pay because of being furloughed.[6]

We find important differences in the rates of job loss and of furloughing between mothers and fathers (Figure 3.1). Among parents who were working in February 2020, mothers are 9 percentage points more likely to have stopped working for pay than fathers. We find that 17% of mothers are no longer doing paid work, having lost their work permanently (whether they were laid off, were fired or quit), compared with 11% of fathers. Mothers are also somewhat more likely not to be doing paid work because of being furloughed through the Coronavirus Job Retention Scheme (35%, compared with 30% of fathers).

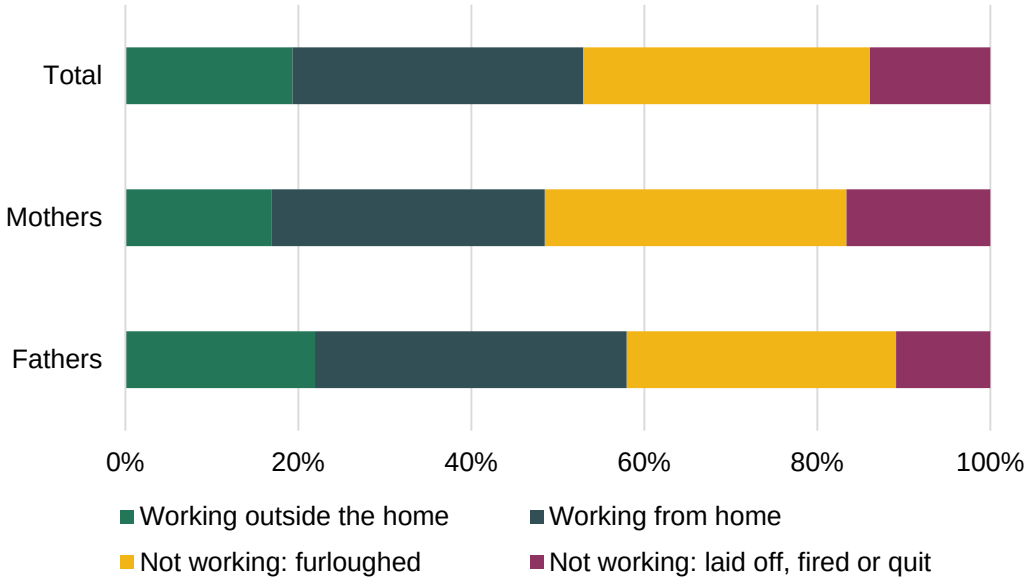
These effects compound the already unequal employment rates of mothers and fathers, which in our data were, respectively, 75% and 92% in February 2020 (very close to the 75% and 93% in nationally representative data for April–June 2019).[7] This compares with 37% of mothers and 53% of fathers reporting doing some paid work in our survey in May 2020. So, while prior to the crisis mothers were in paid work at 80% of the rate for fathers, now they are in paid work at only 70% of the rate.

[6] While it is too early to say whether our figures on job loss and furloughing among parents are accurate representations of what is happening in the wider economy, in this report we focus on the *differences* in employment and time use between fathers and mothers and across families, which are likely to be less sensitive to potential sampling bias. We discuss how these statistics compare with other estimates of furloughing and unemployment rates given in Andrew et al. (2020b).

[7] See ONS (2019). These employment rates are also consistent with findings from other surveys recently collected for the UK (e.g. Adams-Prassl et al., 2020; Sevilla and Smith, 2020).

If those who have stopped paid work during the crisis find it difficult to return in the short term, either because low labour demand coupled with high overall levels of unemployment make it hard to find a job or because their other commitments remain incompatible with paid work, then these initial inequalities could persist beyond this crisis through the loss of skills and labour market attachment, leading to long-term increases in gender inequalities.

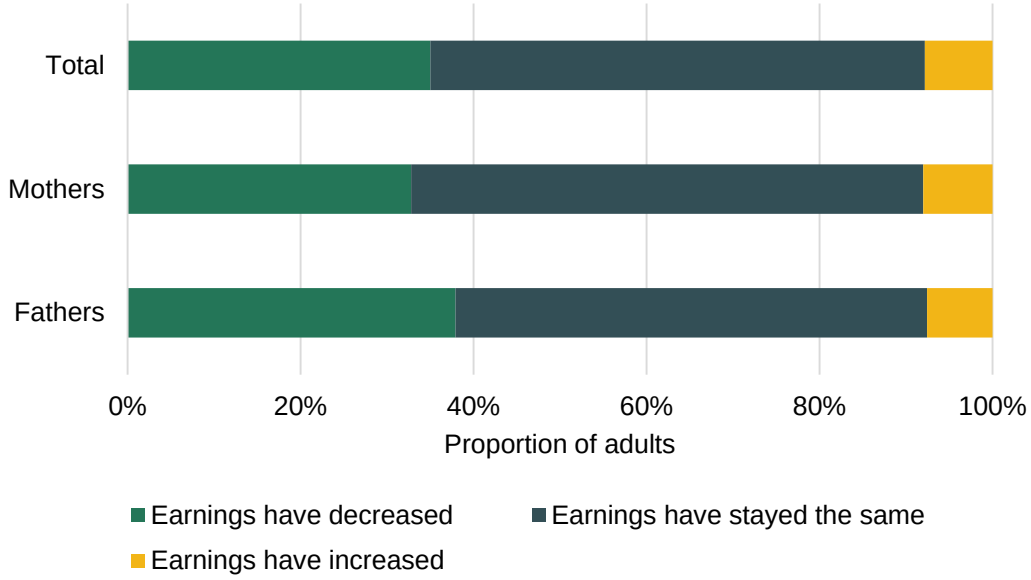
### Figure 3.1. Current engagement in paid work by gender for parents who were in paid work in February 2020




In order to get an idea about the extent to which employment patterns were affecting household resources, we asked respondents to report their annual pre-tax income before lockdown and whether it had decreased, stayed the same or increased since the beginning of lockdown.[8] Figure 3.2 shows that around one out of three parents in the sample report a decrease in earnings over the lockdown period. The majority (57%) have experienced no change, while less than 10% report an increase. Although a slightly higher proportion of fathers than mothers report a pay decrease, on the whole there are no substantial gender differences in these patterns. It is important to remember that these patterns reflect the situation as of May–June 2020 or one to two months after the beginning of the lockdown, and may therefore underestimate or overestimate the changes in earnings that will result from the COVID-19 crisis in the long term.

[8] We did not ask about income during lockdown as it was too early into the lockdown for respondents to predict their new annual pre-tax income, and comparisons of monthly and yearly incomes are likely to be misleading.

**Figure 3.2. Change in monthly earnings since February 2020**




Even more concerning than the large proportion of parents reporting a decrease in earnings is the fact that parents who experienced a decrease in earnings are also more likely to have a partner who has experienced an earning loss. Figure 3.3 shows that there is an important correlation in how the crisis affected the earnings of spouses in two-earner couples with children. Indeed, of the 38% of working fathers in couples who report a decrease in earnings, half report that their partner also experienced a decrease in earnings during this period and only 6% report that their partner's earnings increased. In contrast, in the 62% of couples in which the earnings of fathers remained unchanged or increased, only 21% report a drop in the earnings of the mother.

These figures suggest that the labour supply of spouses in couples offers limited insurance during this crisis, as the changes in earnings are highly correlated across spouses. Figure 3.4 uses the information underlying Figure 3.3 to determine how combined household earnings have changed during the lockdown. Nearly half (47%) of the couples in our survey experienced a reduction in combined household earnings, meaning that for many families, the crisis is creating significant reductions in the financial resources available. For a small minority of families (4% overall), we cannot determine whether their earnings increased or decreased. This happens when the earnings of the two spouses changed in the opposite directions and the infrequency of this situation is further evidence suggestive of the limited role of spouses' labour supply in insuring against the COVID-19 shock.

**Figure 3.3 Change in mothers' monthly earnings in couples since February 2020, conditional on change in fathers' monthly earnings during the same period**

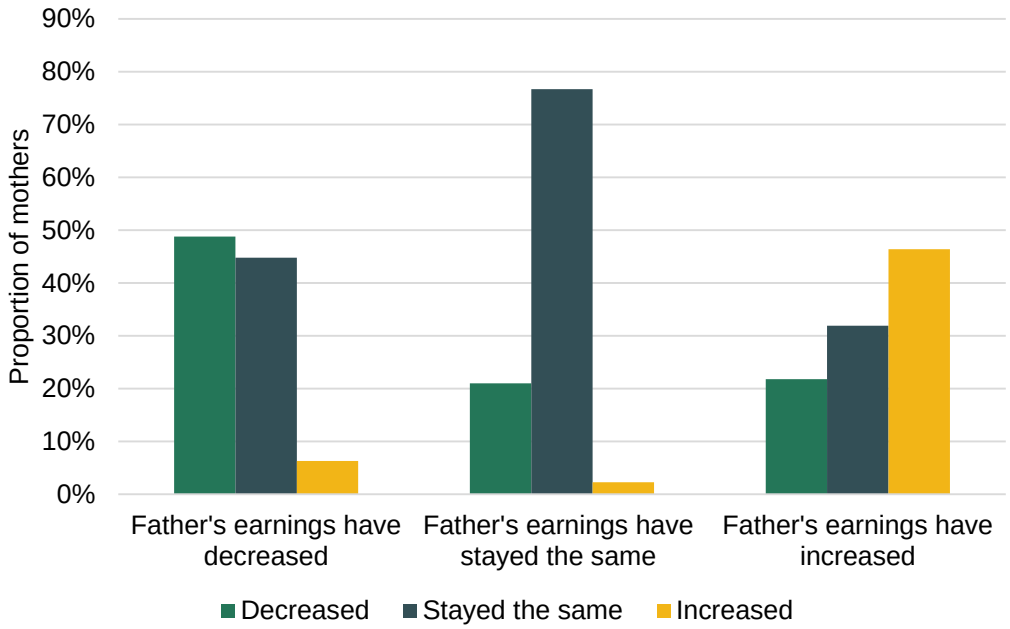
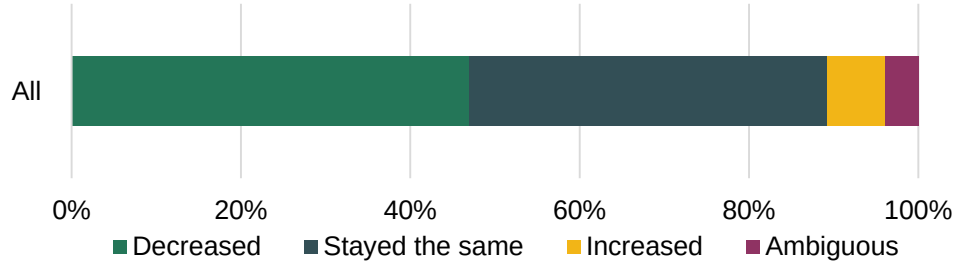



**Figure 3.4 Change in mothers' monthly earnings in couples since February 2020, conditional on change in fathers' monthly earnings during the same period**




If low-income families are more likely to see their earnings decrease, as has been suggested in other work (Blundell et al., 2020), then the crisis could have a devastating impact on inequalities, intensifying the income gaps between those at the top and bottom of the income distribution before the crisis. We now examine the employment and earnings of families with different socio-economic circumstances *prior* to the lockdown.

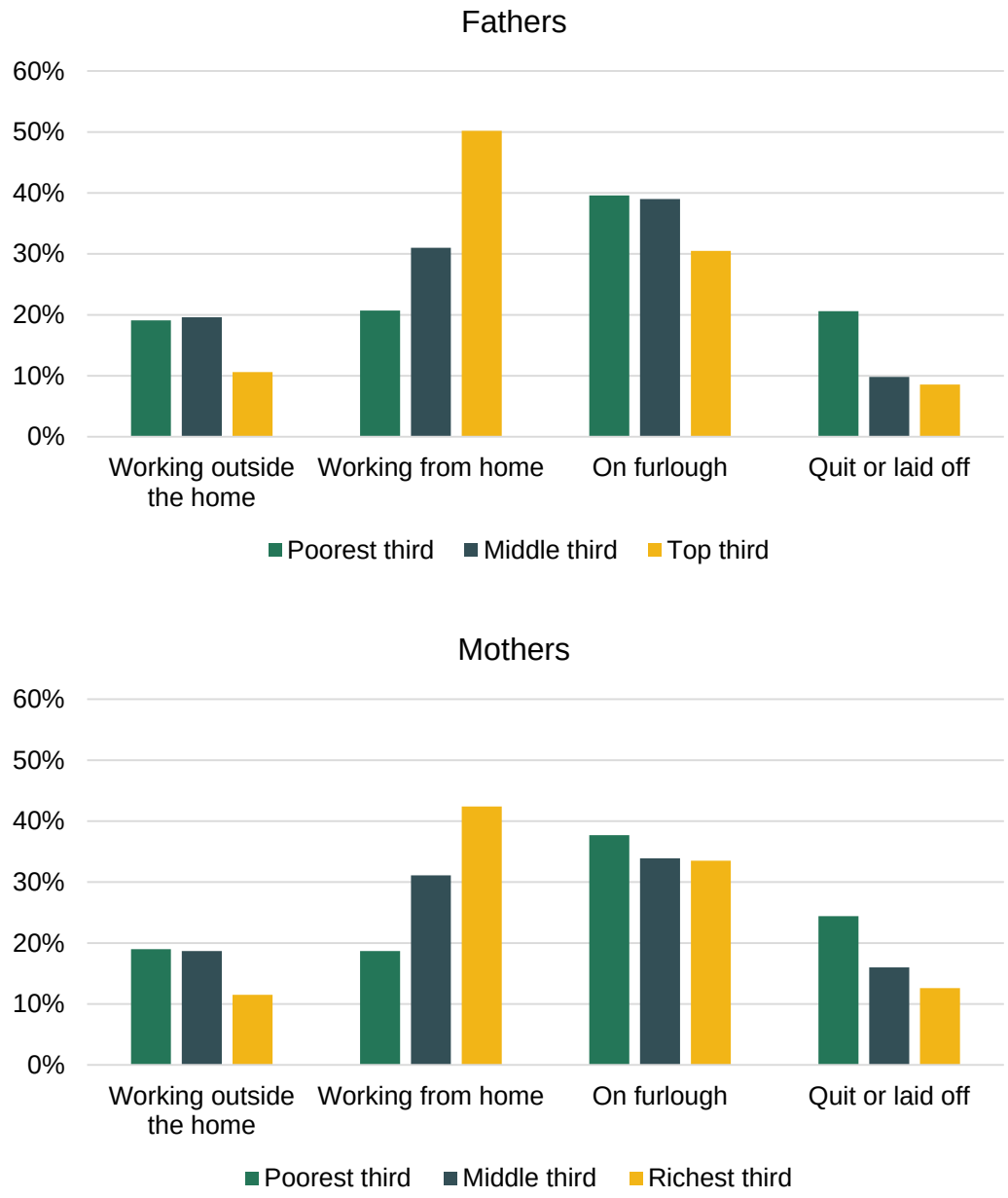
## 3.2 Differences in the effect of COVID-19 on parents' employment and earnings across families

In order to examine how the COVID-19 affects the labour market outcomes of parents who had different socio-economic circumstances prior to the crisis, we use the information we collected in the survey about total pre-tax earnings of parents in 2019 and the number of adults and children in the household to construct a measure of pre-COVID-19 equivalised household earnings. We split the entire sample of families into three equally sized groups by family income to construct three terciles of the distribution of family income. We then investigate what happened to the work status and earnings of mothers and fathers from each of the three groups.

Figure 3.5 describes the lockdown working status of parents who were actively in work in February 2020. In line with other studies, we find that the poorest tercile of workers are more likely to have stopped working, either because they have been furloughed or because they have lost their jobs permanently. The differences across groups are especially pronounced for permanent job losses. Fathers in the more deprived families are more than twice as likely to have lost their jobs permanently as their better-off peers in the top tercile of the household earnings distribution; the comparable figure for mothers is just slightly below the one for fathers. Parents in better-off families are more likely to continue to work through the lockdown: 60% of formerly working fathers in the better-off families continue to do so, a figure that drops to 40% for fathers in the poorest tercile of families. The comparable figures for mothers are 55% and 38%.

The ability to work from home has been regarded as the key feature to help protect jobs under the lockdown by allowing economic activity to continue while keeping to the social distance measures required to slow down the rate of contagion. One would expect that being able to work from home is especially valuable for parents trying to combine their work responsibilities with the additional demands of childcare and home schooling that the closure of schools and nurseries have imposed on them. But once again, the ability to continue working from home is strongly socially graded. As we see in Figure 3.6, parents in better-off families are much more likely to have continued working from home – and indeed the proportion of better-off parents working outside the home is much smaller than the proportion of poorer parents doing so.

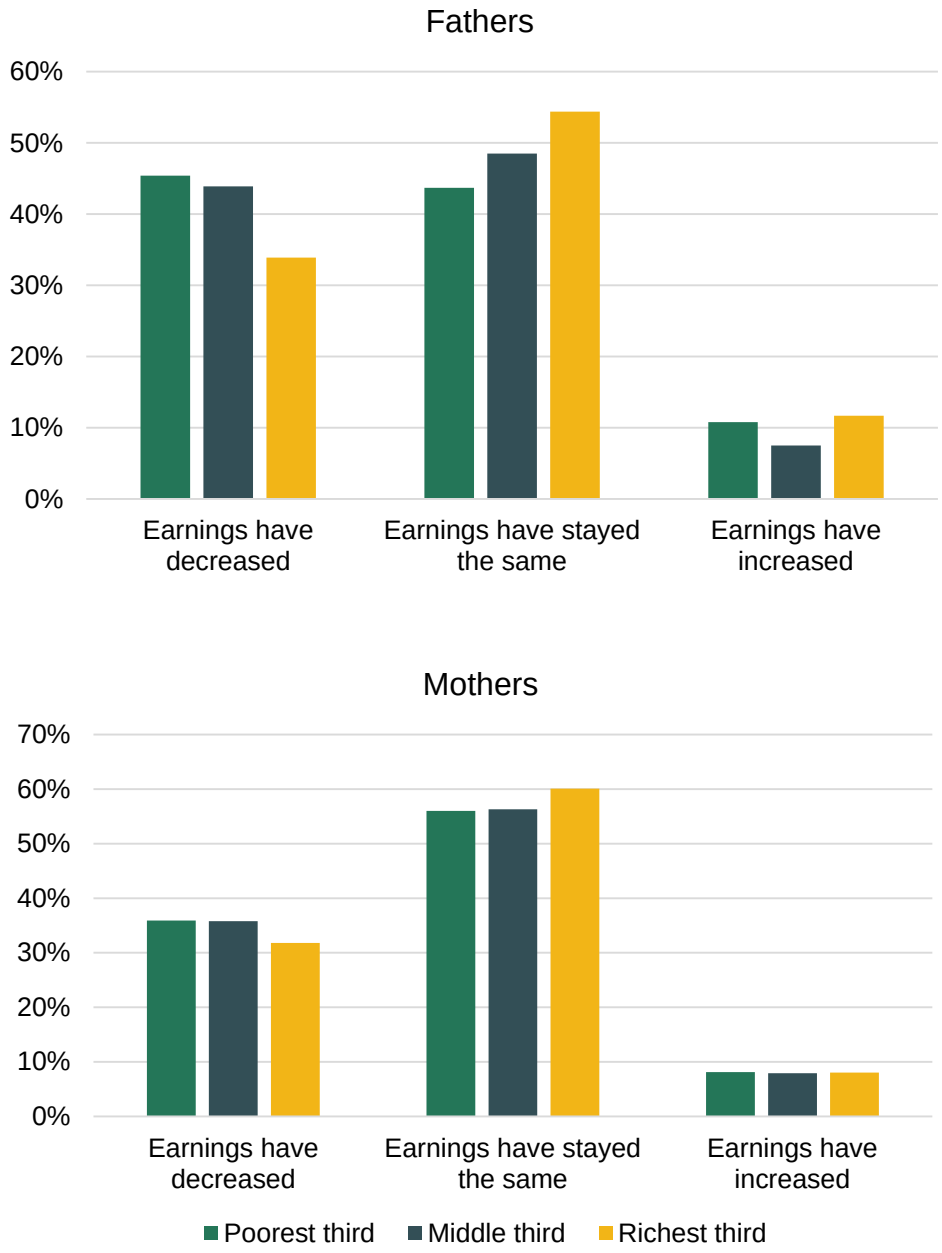
**Figure 3.5. Current engagement in paid work by gender for parents who were in paid work in February 2020, by pre-lockdown family income**




Consistently with the how the crisis has affected the working status of mothers and fathers across the income distribution, Figure 3.6 shows that a higher proportion of parents in the worse-off families are likely to have experienced a reduction in earnings compared with the period before lockdown. Moreover, the earnings of fathers are more likely to have dropped than those of mothers, though this is a lot less likely among households with higher family income before the crisis. Indeed, as much as 45% of fathers in the poorest families saw their earnings drop, 11 percentage points above the figure for fathers in the richest tercile. Because parents

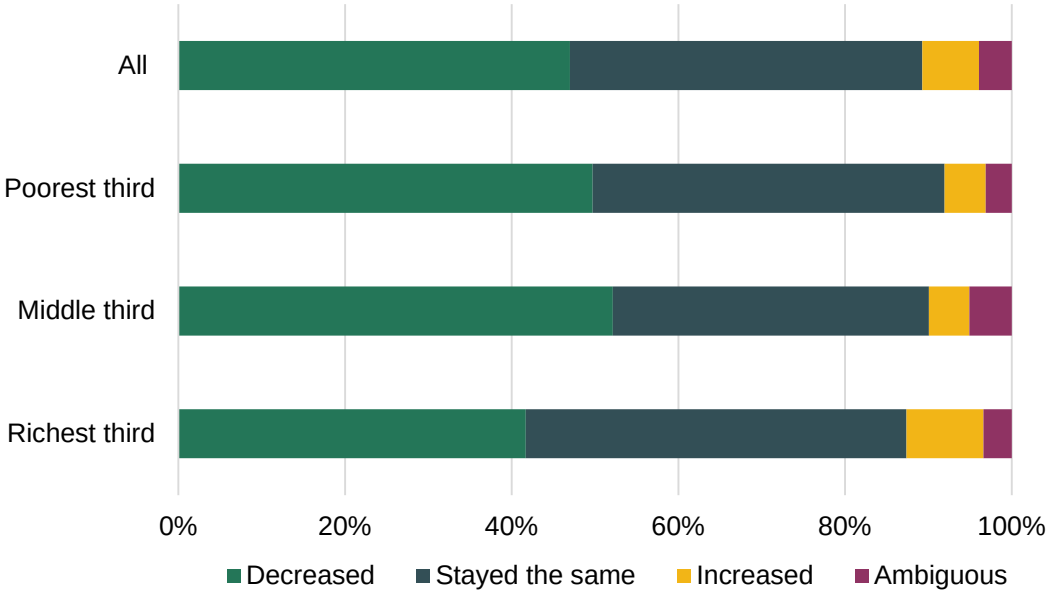
in the poorest tercile of families are also more likely to have lost their jobs permanently, the negative shocks in earnings that they are experiencing are not only more frequent but also likely to be more severe than those experienced by parents in better-off families.

**Figure 3.6. Change in monthly earnings since February 2020, by pre-lockdown family income**



What do these patterns mean for overall household earnings? To answer this question, we combine information on how the crisis has affected the earnings of both parents in two-parent families. Given the strong correlation between the changes in the earnings of partners in couples that we documented before, it is not surprising that the patterns observed for mothers and fathers are reproduced at the family level. In Figure 3.7, we see that half of the families in the bottom tercile have suffered drops in family earnings, 8% more than families in the top income group. But the middle-income group fares just as badly as the bottom, with 52% of families experiencing a reduction in family income. In contrast, very few families have seen their income increase.

**Figure 3.7. Change in household monthly earnings since February 2020, by pre-lockdown family income**




The evidence described in this chapter suggests that COVID-19 is not only creating significant changes in the economic circumstances of families with children, but it is also affecting the families that were poorest and richest prior to the crisis very differently. Not only is the spectre of job loss much more present for low-income families, but the unprecedented subdued levels of economic activity and the high uncertainty about any return to regular activity are likely to make the event of job loss particularly damaging to their household finances in the longer term (Baker et al., 2020). Given that poorer households also tend to have lower levels of savings to help them through the worst of the crisis, the current crisis means that families who were already at the bottom of the income distribution prior to the crisis may feel especially vulnerable.

The inequality with which COVID-19 is affecting the employment patterns of parents is likely to translate into inequalities in the ways parents and children interact and spend their time, with likely important implications for family members' well-being and children's learning, and inequalities therein. The unique data on time use that we have collected allows us to understand how the various pressures created by the COVID-19 crisis are changing day-to-day lives and how families are coping differently with these pressures. We now turn to describing how the days of parents with children during the lockdown have changed as a result of the crisis and we highlight the particular challenges created by social distancing measures and school closures.

# 4. Parents' time use during the lockdown

Understanding the pressures on their time that parents faced during the lockdown is not only important to understand how the crisis is affecting parents' well-being, but also because these pressures can have direct consequences for the welfare of their children. Evidence suggests that how much time parents spend with their children and, crucially, what they do during this time can have an important influence on the development of their children. Moreover, the multiple demands that parents have on their time are likely to be detrimental to their mental health and increase stress levels, which are, in turn, likely to negatively affect their children.

While the data we have collected do not allow us to link parents' time use to children's outcomes yet,[9] in this chapter we describe what the time use diaries we have collected reveal about how parents spent their days and coped with the unprecedented challenges that lockdown created for them. To get a sense of how different parents' time use is now, compared to before the crisis, we draw on the UKTUS and compare, where possible, parental time use patterns, before and during the lockdown.

## 4.1 How parents spent their days during lockdown?

For each hour of the day, Figure 4.1(a) shows the share of all mothers and fathers in our survey doing each of six broad activity categories. Figure 4.1(b) shows the same but for weekdays in 2014–15, using the UKTUS.[10] Beginning with the non-work activities – sleep, personal care and leisure – the overall patterns of time use look sensible, an indication that respondents responded truthfully to the survey on

[9] We have asked survey respondents for consent to link their survey responses to their children's National Pupil Database records (both prior attainment data and future test scores). We hope to analyse these data in future work, once administrative education records for the academic year 2020–21 are released.

[10] In the survey, we asked about paid work, housework, leisure, exercise, personal care, 'active' childcare (such as playing with a child or doing educational activities), 'passive' childcare (keeping an eye on a child), caring for others (not children) and sleep. In addition to respondents' reports of passive childcare done by them and their partner, we also include hours in which the respondent reported through the child time use diary that they or their partner was supervising their child. In this analysis, we combine 'exercise' and 'leisure' to create one leisure category and we drop 'caring for others' due to the rarity with which this activity was selected.

average. As we would expect, most parents are asleep during the very early hours of the morning and increasingly throughout the late hours of the evening, with personal care peaking both after individuals wake up and before they go to bed. Leisure increases in the early evening, likely coinciding with when young children have gone to sleep (see Figure 5.1 for how children are spending their days).

The time of day that parents engage in non-work activities is broadly similar to the period before the lockdown. However, there are interesting differences in how likely they are to perform these activities at all during these hours. The most striking change brought about by the lockdown is a large drop in leisure. Whereas before lockdown some 70% of parents reported doing leisure at around 7pm, during lockdown only 40% did. Likewise, time spent on personal care by parents appears somewhat lower during the lockdown. This suggests that the time pressures that many parents are facing during lockdown are eating into their leisure time. Interestingly, we see very few differences in the time use patterns reported for these non-work activities between mothers and fathers during the lockdown. This contrasts with the pre-COVID-19 period, when mothers reported, on average, spending *more* time than fathers on personal care, leisure and, to a small extent, sleep. The fact that mothers' and fathers' patterns of time use now look identical actually reflects a loss of time spent in these activities for mothers, relative to fathers, compared with before the lockdown.

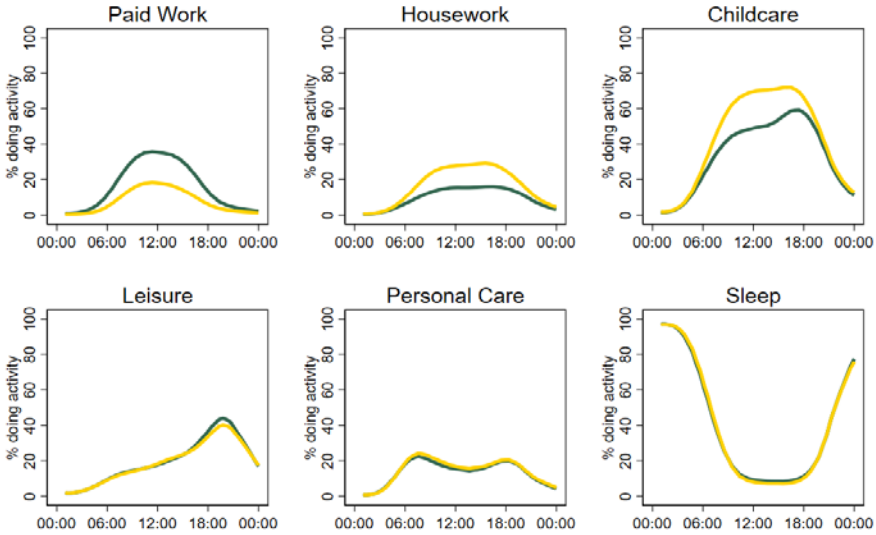
Turning to paid work, Figure 4.1(a) shows that many parents' work schedules still very much follow traditional working hours, with work being far more commonly reported between 9am and 5pm than outside of these hours. What is most striking, however, about the work patterns during the pandemic is the much lower levels of work than those we observe in the 2014–15 UKTUS data. For example, during lockdown, we find that 40% of fathers reported working at 12 noon, compared with nearly 70% in 2014–15. These patterns are unsurprising given the loss of employment directly resulting from COVID-19 discussed in the previous chapter.

While parents are working less than they did in the 2014–15 period, they are now doing far more childcare than they were during a regular weekday in 2014–15. For both parents, childcare is the activity that is most frequently reported during waking hours and parents, especially mothers, are doing some childcare throughout the great majority of their day. This contrasts with the period before the lockdown, where there was a big drop in childcare during school hours. During lockdown, in every hour between 8am and 6pm, around 70% of mothers and 50% of fathers are doing childcare. Fathers' childcare peaks (at 60% of fathers) just after the end of regular working hours, between 5pm and 6pm, suggesting that many fathers join or take over childcare from their partners at the end of their working day.

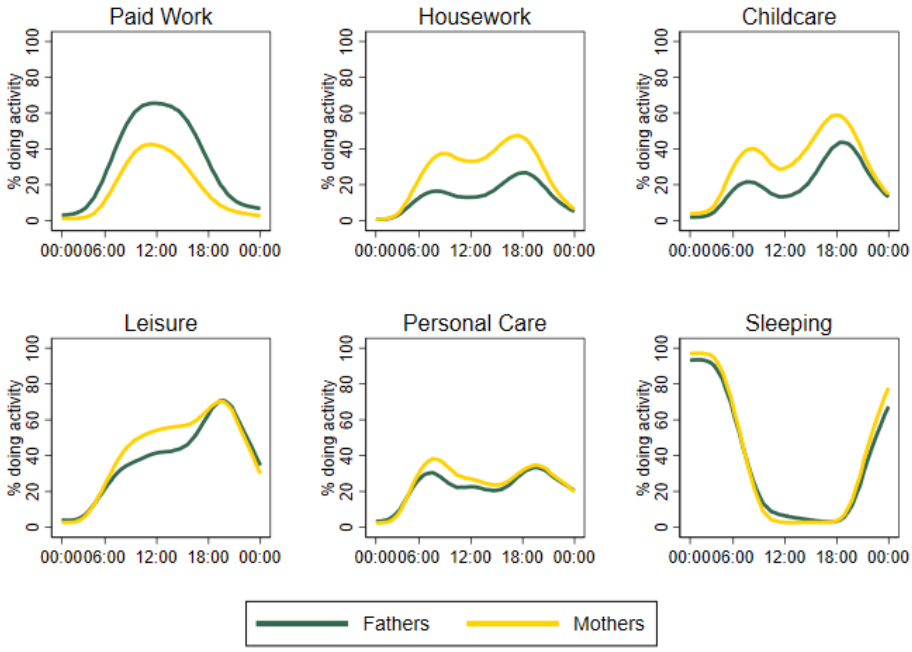
The time use diaries we collected can also be used to calculate the number of one-hour slots in which mothers and fathers report doing a particular activity. While these will not yield exact estimates of the time actually spent on different activities,

## Figure 4.1. Mothers' and fathers' activities over the course of the day during the lockdown, compared with 2014–15

### (a) During the lockdown (May 2020)




### (b) Before the lockdown (2014–15)

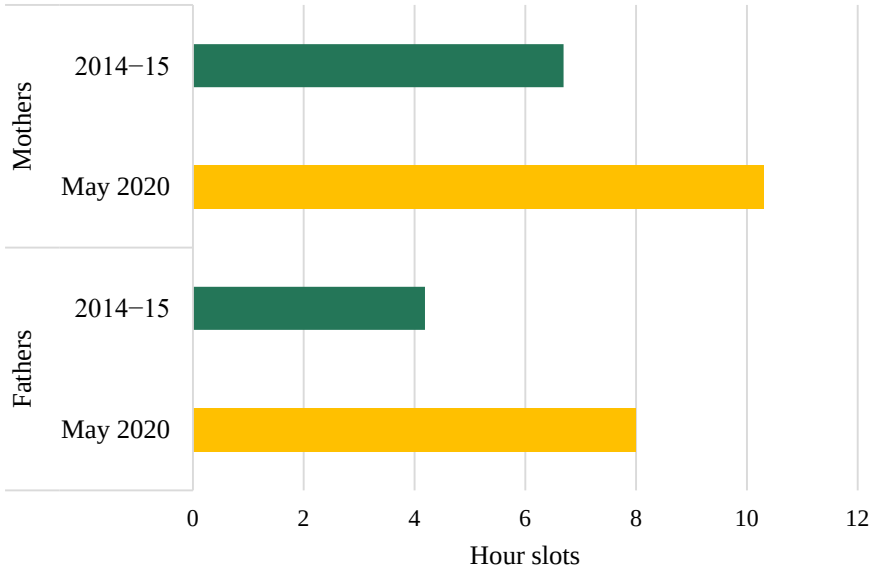



Note: The figures report the proportion of fathers and mothers engaging in each activity in one-hour slots of the day on weekdays. The samples include both one- and two-parent households.
Source: (a) Authors' own calculations based on the IFS–IoE survey of time use; (b) Authors' own calculations based on the UKTUS.

these statistics can still provide important insights into the ways mothers and fathers allocate their time, especially relative to each other.[11] For the purpose of comparing time use patterns before and during the lockdown, we create similar statistics based on the UKTUS.

Figure 4.2 shows the average number of total one-hour slots in which mothers and fathers report doing some childcare and confirms the large increase in time spent doing childcare during the lockdown, as observed in Figure 4.1. Compared with 2014–15, the number of hours mothers spend doing some childcare in May 2020 has increased by over 50% to 10.3 hour slots a day. For fathers, this increase is even larger, as hours spent doing some childcare have nearly doubled, from slightly over four hours a day in 2014–15 to eight hours in May 2020.

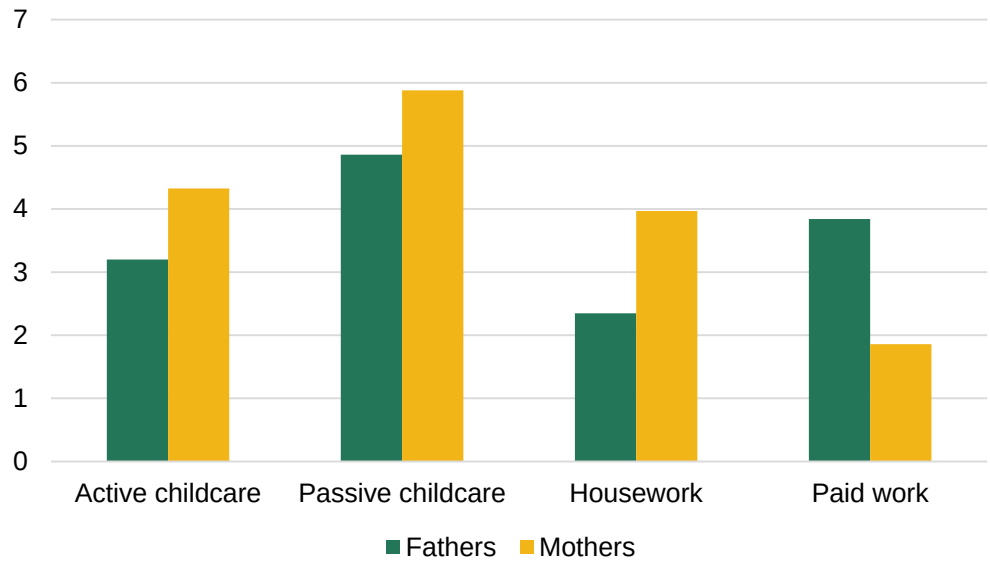
### Figure 4.2. Number of one-hour time slots during which some childcare is performed, before and during the lockdown




[11] As detailed in Chapter 2, in order to capture time use we asked respondents to fill in information about what the selected school-aged child in the household was doing in each one-hour slot in the previous 24 hours. As children may spend less than an hour on a given activity, we allowed respondents to report that a child was doing more than one activity within each one-hour slot. Our data thus capture *the number of one-hour slots* during which children were reported to be doing a particular activity. They do not allow us to determine precisely *how long* children spent on a particular activity. While these two measures will be correlated, they will not necessarily be equal, with the number of one-hour slots likely to overestimate the exact time spent on a given activity.

Our data allow us to distinguish between active and passive childcare – that is, time when parents actively engaged in an activity with their child(ren) versus time when they keep an eye on their child(ren). As we can see from the first four bars in Figure 4.3, around 40% of parents' childcare slots involve actively doing activities with their children or providing care for them. The remaining 60% is passive, referring to keeping an eye on children while also doing other things. While mothers are doing more of both active and passive childcare than fathers are, the breakdown between the two seems fairly similar between parents.

### Figure 4.3. Number of one-hour time slots where different activities are performed




The last four bars of Figure 4.3 show the number of hours parents report doing some paid work and some domestic work. Mothers do some paid work during two fewer hours than fathers, but they do both some housework and some childcare during two more hours than fathers.[12] Of course, many of these patterns predate lockdown. Figure 4.2 showed, for example, that already in 2014–15 fathers were doing two fewer slots of childcare than mothers, a gap that remains unchanged during lockdown. Likewise, fathers are more likely to have been working, and particularly working full-time, prior to lockdown. What our survey shows is that, despite the important disruptions to households' daily lives, the average family's division of time between paid work and domestic work still largely follows the

[12] This is consistent with other recent surveys, which also find large differences in the time spent on childcare by mothers and fathers during the current crisis (e.g. Adams-Prassl et al. 2020; Sevilla and Smith, 2020).

traditional model of a male breadwinner and female caregiver, likely even more so than before the COVID-19 crisis.

## 4.2 How parents juggled work and childcare?

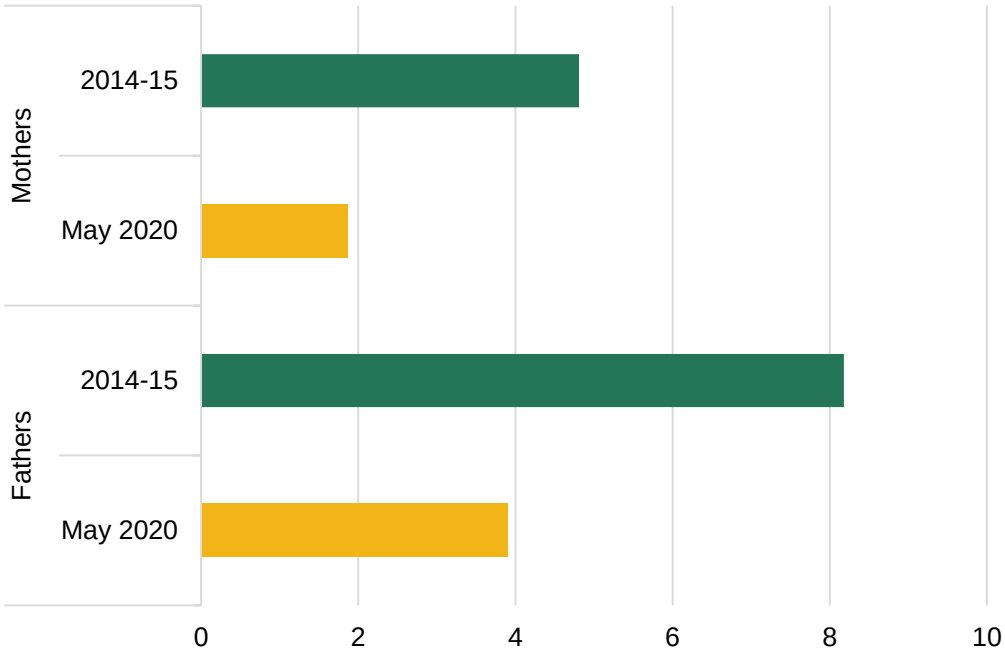
For working parents, the huge increase in the need for childcare due to school closures meant that parents were often juggling childcare and work during a significant proportion of the day. As we saw earlier, and as shown in more detail in Figure 4.4, parents' working hours have decreased substantially during the pandemic. Amongst all parents, including those doing no paid work, both mothers' and fathers' working hours have more than halved. These reductions in hours have, for almost half of parents, been accompanied by reduced income and financial stress. While this reduction in working hours will clearly remove some of the pressure on parents' time, it may also come with additional anxieties for parents who are unsure of whether they will be able to return to their same work or find comparable work after the lockdown. Likewise, many parents who have cut back their work hours to care for children may be stressed about reduced productivity and how this will affect job retention and promotions. This stress may, in turn, impinge on the nature of time spent on childcare and the enjoyment and usefulness of that time both for parents and children.

These very low, overall, working hours do mask substantial variation. Amongst parents who report that they are currently working for pay, the average number of hour slots in which they report paid work during the day was 7 for fathers and 5.3 for mothers. This means that for these families, especially those where either two parents are working or a single parent is working, the juggling act between paid work and childcare is likely to be particularly difficult. For parents working from home, working time – and especially focused working time – can be hard to come by. Parents, who are now largely responsible for both childcare and education around the clock, are contending with more demands from their families on their time. And childcare, particularly for younger children, is often not an activity that can be rigorously scheduled in focused blocks of time.

Figure 4.5 shows that parents often report simultaneously juggling childcare while doing paid work, and, in particular, mothers are often simultaneously juggling the two tasks. It shows that, overall, during lockdown 45% of mothers' work hours and 26% of fathers were simultaneously spent taking care of children. On a regular weekday in 2014–15 around 10% of both mothers' and fathers' work hours were simultaneously spent doing childcare.

## Figure 4.4. Working hours of mothers and fathers, before and during the lockdown

### (a) All parents




### (b) Parents doing some paid work

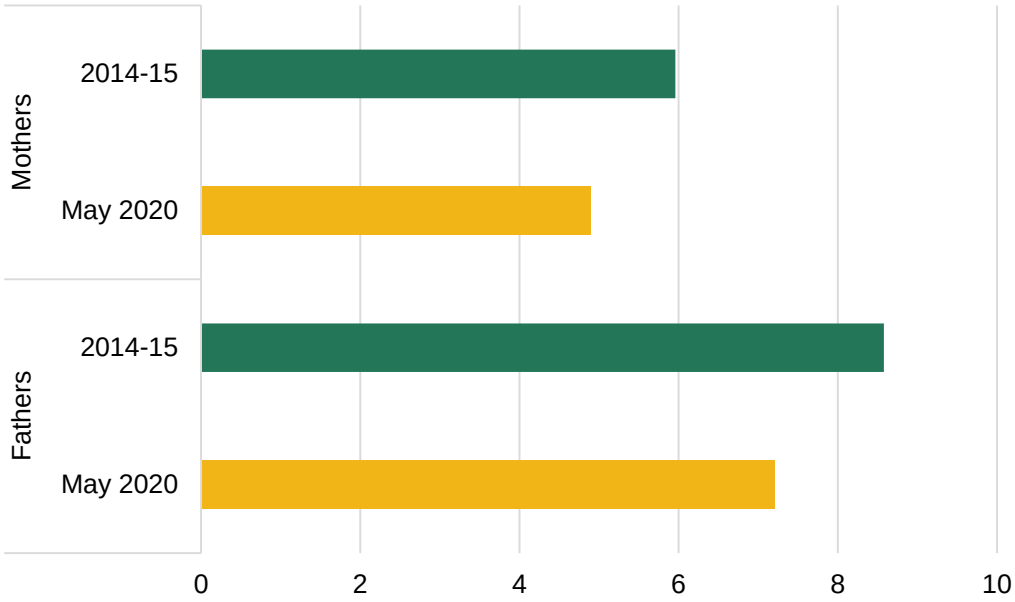
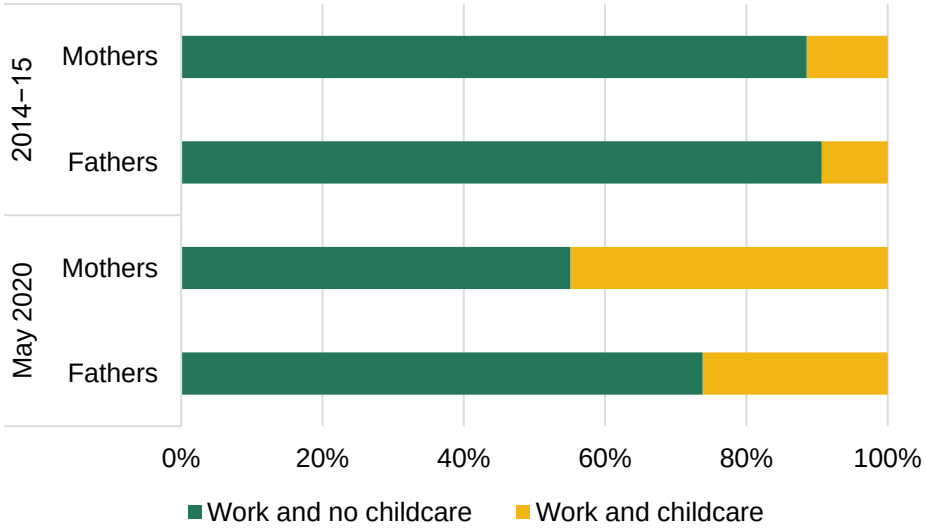


**Figure 4.5. Proportion of parents' work hours where they are simultaneously providing childcare**




Past studies have demonstrated that working while also taking care of other tasks, including childcare, diminishes the productivity of work time.[13] This suggests that these work patterns are likely to be causing stress to parents who know that they are not being as productive as they usually would be. Just as paid work is difficult to do productively when combined with childcare, it may be difficult for parents to provide high-quality childcare while simultaneously working, particularly for young children whose play and learning may require more active input from adults and in situations where children's schools were providing few interactive resources. This could be a particular issue if parents are stressed by their work situation while trying also to care for children. Therefore, the strain of balancing paid work and childcare *may* have had negative impacts on the quality of children's time when compared with pre-pandemic childcare arrangements.

Of course, though, in some cases the opposite may also be true. Even if the time spent with children is not ideal in the sense that it is squeezed in during work hours, there may be cases where children get a lot out of engaging more actively with parents who they usually see less of during the working week. This might be particularly the case for fathers who, as shown in Figure 4.2, have seen a doubling of the hours they spend on childcare during the pandemic.

[13] See Blundell et al. (2016), Adams-Prassal et al. (2020) and Coviello, Ichino and Persico (2015).

# 5. Children's time use during the lockdown

While COVID-19 has led to important changes in parents' time use, the school closures and other social distancing measures have changed the ways school-aged children spend their days in unprecedented ways. Previous research has found that children aged 8–16 spend, on average, 30 hours a week at school (during term time), and another 22 hours a week outside their homes. Not only are most now spending all this time at home, but the support they used to receive from their teachers, parents and friends will have changed significantly over the past months.

The transition to home learning has been a disruption for virtually every child in England. However, the extent to which it is a harmful one will depend on how home learning is implemented in each school and in each family. The next two chapters of this report aim to build a picture of how the pandemic has changed the daily lives of children and their learning experiences. In this chapter, we focus on children's time use during the lockdown. After providing an overall picture of how children spend their time now, compared with before the lockdown, we focus on the time they spend on various educational activities and how these patterns vary depending on their socio-economic backgrounds.

## 5.1 How children spent their days during lockdown?

In line with our analysis of parents' time use in Chapter 4, we use the time use diaries we have collected in the survey to understand what activities children engage in throughout the day. Figure 5.1(a) shows the activities that the parent responding to the survey reported the child was engaged in during each hourly time slot in the 24 hours preceding the survey.[14] Figure 5.1(b) mimics the analysis using the UKTUS for the period 2014–15. In both panels, we present all of the results separately for primary and secondary school children.

Beginning with sleep and personal care, Figure 5.1 shows that the lockdown has left these activities broadly unaffected, compared with the period before the lockdown.

[14] We only allowed respondents to answer the survey from Tuesday to Saturday so that the 24 hours preceding the survey always corresponded to a week day.

All school-aged children sleep throughout the night, with secondary school children going to sleep later and waking up later than primary school children. Personal care is most likely to take place after waking up and before going to bed. These patterns are sensible and hence reassuring, especially as we used a more aggregated approach to collecting time use (one-hour slots compared to 10-minute slots in the UKTUS).

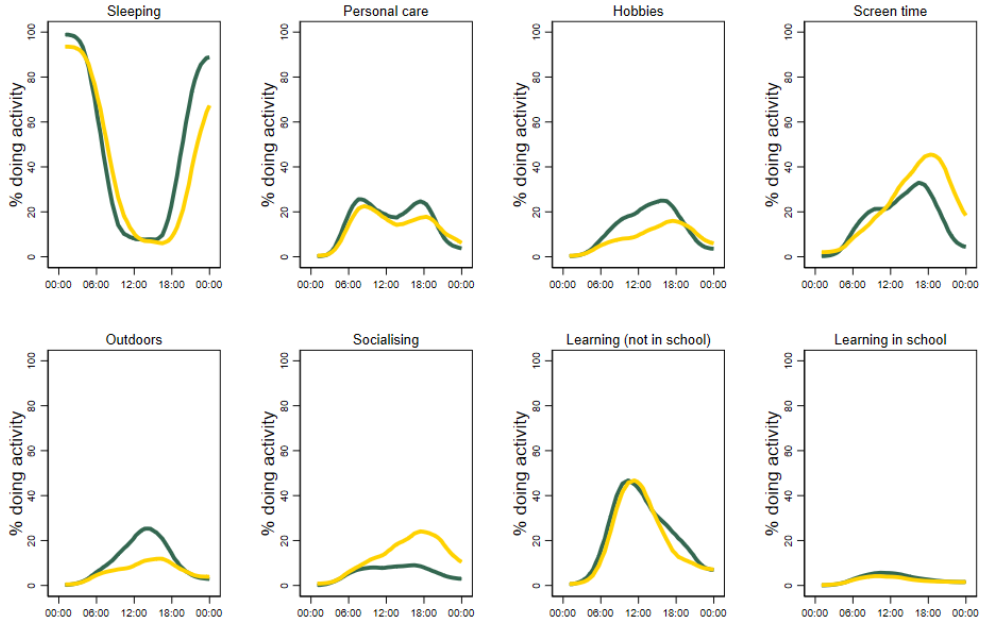
The rest of children's days are filled with learning and leisure activities, which include playing, reading, being outdoors, socialising and on-screen time. Comparing primary with secondary school children in the lockdown period, we see that primary children are more likely to spend time outdoors in a given hour, and less likely to be on-screen except for the early hours of the morning. Time spent outdoors does not seem to have significantly dropped during the lockdown, but socialising has, especially for primary school children. This reduction in socialising among primary school children is likely to be a direct result of social distancing measures, preventing face-to-face interactions with other children through playdates and extracurricular activities. Interestingly, we do not see a similar drop in socialising among secondary school children, most likely reflecting that they now do all their socialising virtually.

Turning to learning, Figure 5.1 suggests that, while learning was obviously done from home during the lockdown for most children, the total time children spent either at school or learning at home did decrease. Indeed, in our survey, a maximum of 50% of children engaged in learning activities at any time of the day, with primary school children being slightly less likely to engage in learning at any given hour.[15] This decrease in overall learning time is perhaps unsurprising given that schools closed for most children. How this will affect children's educational outcomes will depend on the *quality* of the time they spent learning from home. We turn to data collected on specific educational activities performed at home.

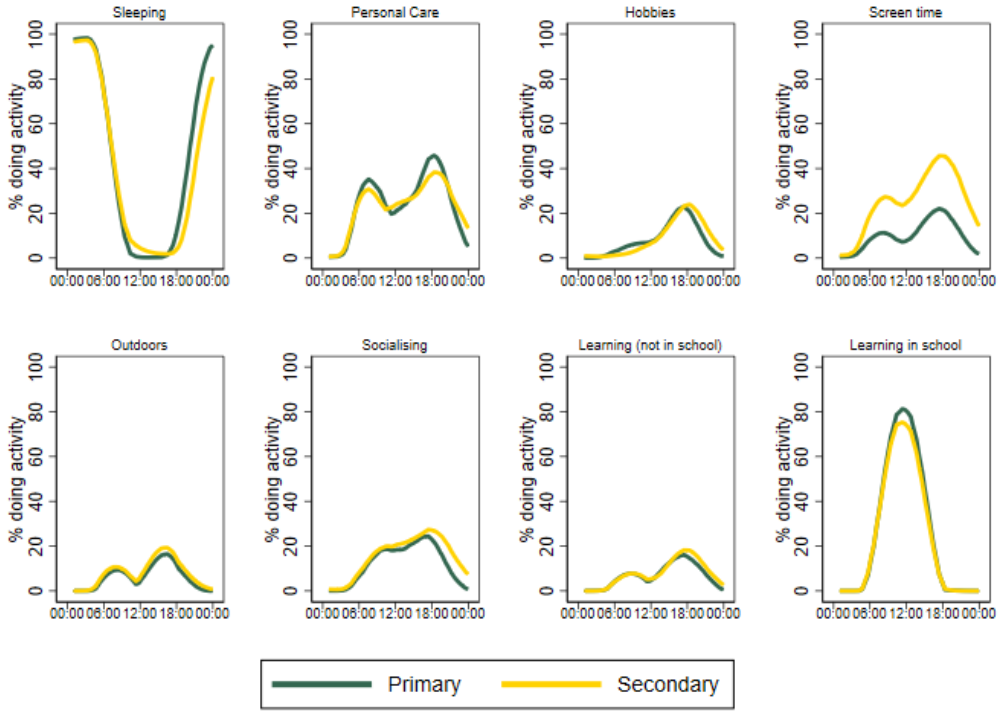
[15] For the outdoors category in UKTUS, someone is classified as outdoors if they are either walking, cycling or exercising in an outdoor area such as a park, or in a sports facility.

## Figure 5.1. Primary and secondary school children's activities over the course of the day during the lockdown

### (a) During the lockdown (May 2020)




### (b) Before the lockdown (2014–15)



## 5.2 Children's at-home learning experiences

Having shown that children spent their time during lockdown in a wide variety of ways, we now focus on time spent learning. For this section, we focus only on children who were not going to school, because the home learning experiences of those still attending schools were likely to be quite different. To capture educational activities, we use the data we collected on the total amount of time each week that children spent on four educational activities: online classes (provided or suggested by the school); other work assigned by the school; time with a paid private tutor; and time on other educational activities. We add the time spent on these four activities together to arrive at a measure of total time on educational activities. We then divide by 5 to arrive at a figure for time per school day.[16]

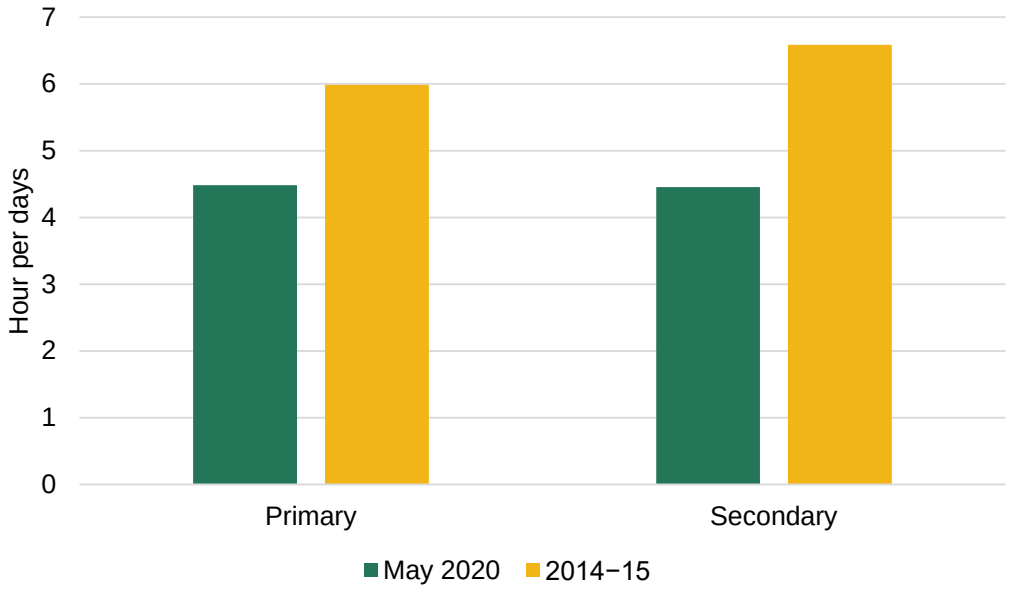
During lockdown, primary and secondary school children spent an average of 4.5 hours a day on educational activities. As shown in Figure 5.2, this is lower than during the pre-lockdown period, when primary school children spent an average of 6 hours per school day and secondary school children spent an average of 6.6 hours per school day on educational activities.

While overall time spent on educational activities is an important determinant of educational outcomes, how children allocate that time across different educational activities may be even more important. In Figure 5.3, we delve into this and report the distribution of hours spent per weekday on different educational activities during the lockdown. We report, in parentheses, the average number of hours spent on each activity among primary and secondary school children.

Online classes may be the closest substitute to a regular class structure that children would have experienced pre-lockdown, and we see that there is large variation in the time that children report spending in online class during the lockdown. While, on average, primary (secondary) school children spend 1.48 (2.14) hours per day, 30% (28%) of primary (secondary) school children report spending 0 hours doing online classes, while 8% (20%) of primary (secondary) school children report spending more than 4 hours per day.

[16] There is a small proportion of obvious outliers giving extremely high values in answer to the questions asking how much time per week was spent on various educational activities. To deal with this, we cap these variables to the 95$^{th}$ percentile of their respective distribution. There is also a small proportion of missing values. We impute these with the average of the variable among non-missing values in the appropriate sample (i.e. the sample of primary school children if the missing observation is for a primary school child and the sample of secondary school children if the missing observation is for a secondary school child). We create the variable 'Total learning time' by adding up the time spent on each of the four activities. We winsorise this variable to 12 hours per day.

**Figure 5.2. Total number of hours spent per weekday on educational activities, before and during the lockdown**

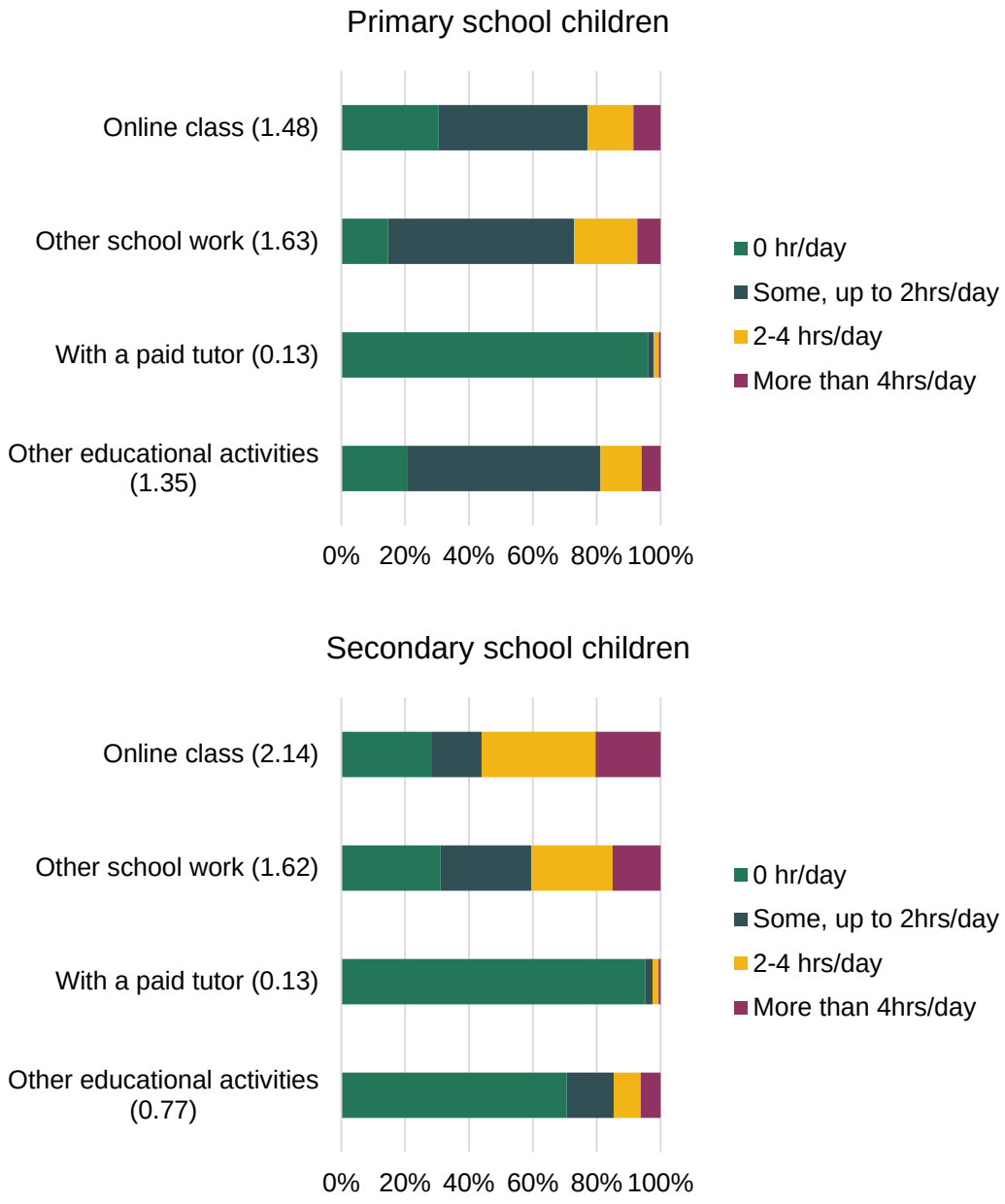



Outside of online classes, primary and secondary school children spend another 1.6 hours on school work. Once again, there is large variation in the amount that children spend on other school work. By far, most primary school children (60%) spent some time on other school work, but less than 2 hours a day. There is a larger fraction of secondary school children than primary school children who spend no time on other school work. But among those who do other school work, 30% of them spent up to 2 hours and another 25% spent between 2 and 4 hours.

When we ran the survey back in May 2020, the vast majority of children were not learning with a paid tutor. Only 4% of primary school children and 5% of secondary school children were spending any time with a paid tutor during the week. But, among them, the average time they spent with a tutor was an hour and a half per day, which is a considerable amount.

Finally, we also asked whether children spent any time on other educational activities, outside of online classes, offline school work and private tutoring. Primary school children reported being much more likely to do so than secondary school children (80% of primary school children versus 30% of secondary school children spent some time on these activities). While it is difficult to interpret these patterns without more details on what these activities include, this could reflect the fact that the work set by primary schools takes less time than the work set by secondary schools, leading the parents of primary school children to keep their children busy for another few hours a day with additional learning activities.

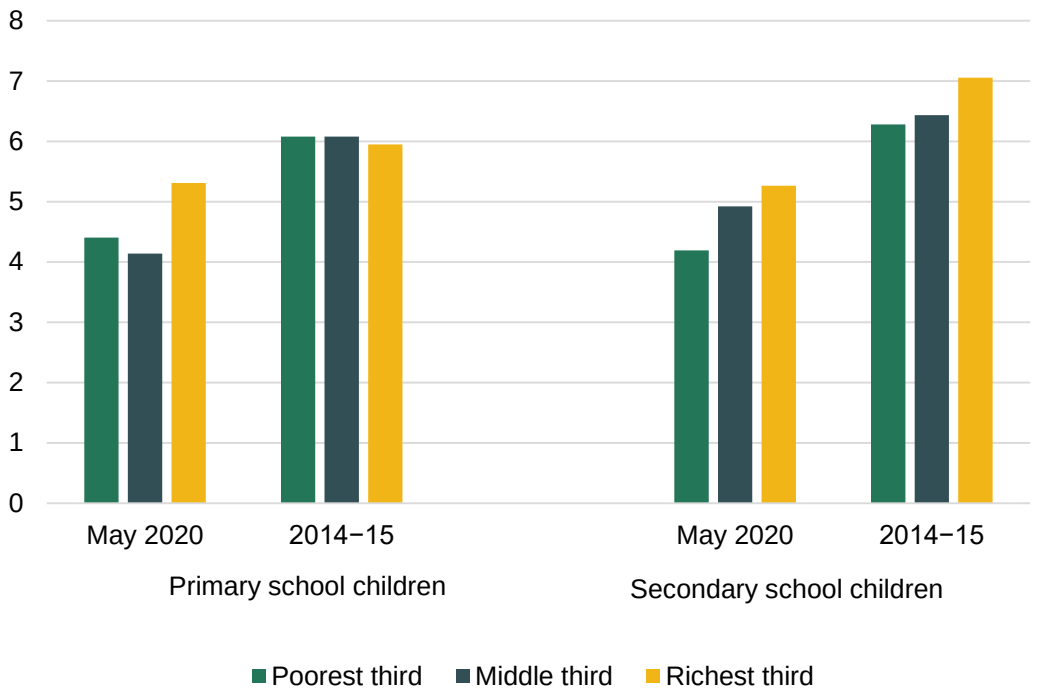
**Figure 5.3. Total distribution of hours spent per weekday on different educational activities during the lockdown**



## 5.3 Differences by family income

We now turn to looking at differences in educational activities by family income. As in previous sections, we split families into income terciles and therefore we can compare households in the top third, middle third and bottom third of income. Overall, children in better-off families spent more time on educational activities in total and in nearly every educational activity individually than their less well-off peers. Overall, for primary school children, the average daily time spent on educational activities during the week for the richest third is 5.3 hours, compared to 4.4 hours amongst the poorest third, which cumulates to a gap of 4.5 hours per week. These gaps are even larger for secondary school children; the richest third spent an average of 5.3 hours compared to 4.2 hours amongst the poorest third. This accumulates to a difference of over 5 hours in a school week. The middle third spent somewhere in between the poorest and richest thirds, at 4.9 hours per day.

**Figure 5.4. Differences in average daily time spent on educational activities on a typical school day, before and during the lockdown**




Comparing these figures to learning gaps prior to the COVID-19 crisis reveals a number of striking patterns. First, learning time during the lockdown was significantly lower than in 2014–15 for *all* socio-economic groups. Second, learning time gaps between the richest and poorest children have widened during the lockdown. While there was no socio-economic gradient in learning time among primary school children before the lockdown, there is now a significant gap between the richest and poorest third of children of around 1 hour a day. Among secondary school children, there was a socio-economic gradient in

learning time (possibly because children from richer backgrounds take more GCSEs), but this gap was even larger during the lockdown.

To study this in greater detail, we depict the change in learning time gaps between the richest and poorest thirds of children between 2014–15 and May 2020 in Figure 5.5. We break down learning time into 'Class time' and 'Non-class time'. Class time includes classes and lectures (before the lockdown) and online classes (during the lockdown). Non-class time includes independent study and other educational activities, including private tutoring. The green bar (All learning time) reiterates the finding from Figure 5.4: the socio-economic gap in all learning time has increased by over 60 minutes a day for primary school children and by about 20 minutes a day for secondary school children. What the 'Class time' and 'Non-class time' bars show is that the increase in the socio-economic learning time gap among primary school children is mostly driven by gaps in class time, while it is mostly driven by gaps in non-class time among secondary school children.

**Figure 5.5. Increases in learning time gap (in minutes per day) between the richest and poorest thirds of children during the lockdown, compared with 2014–15**

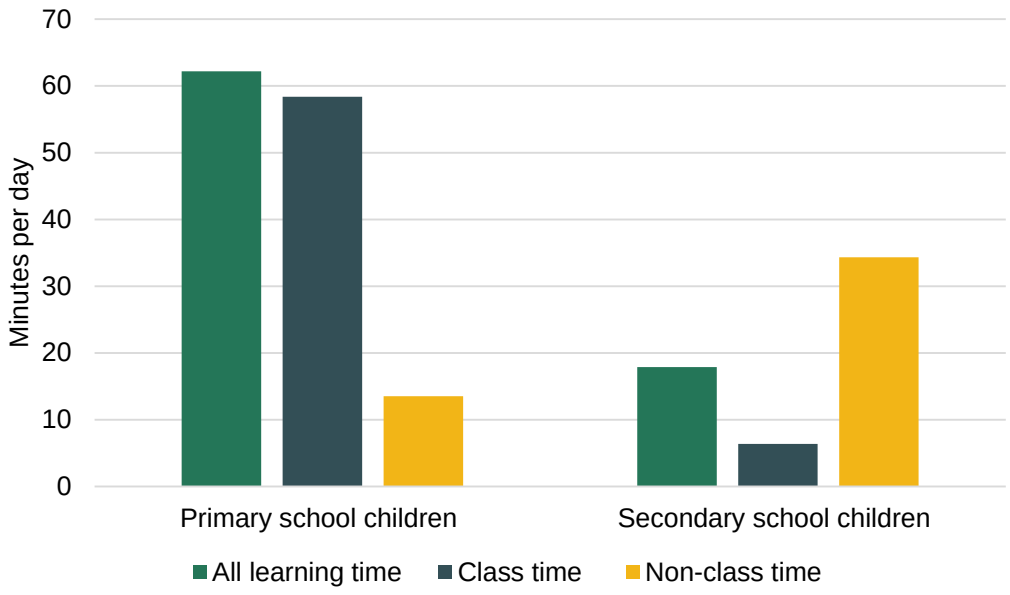
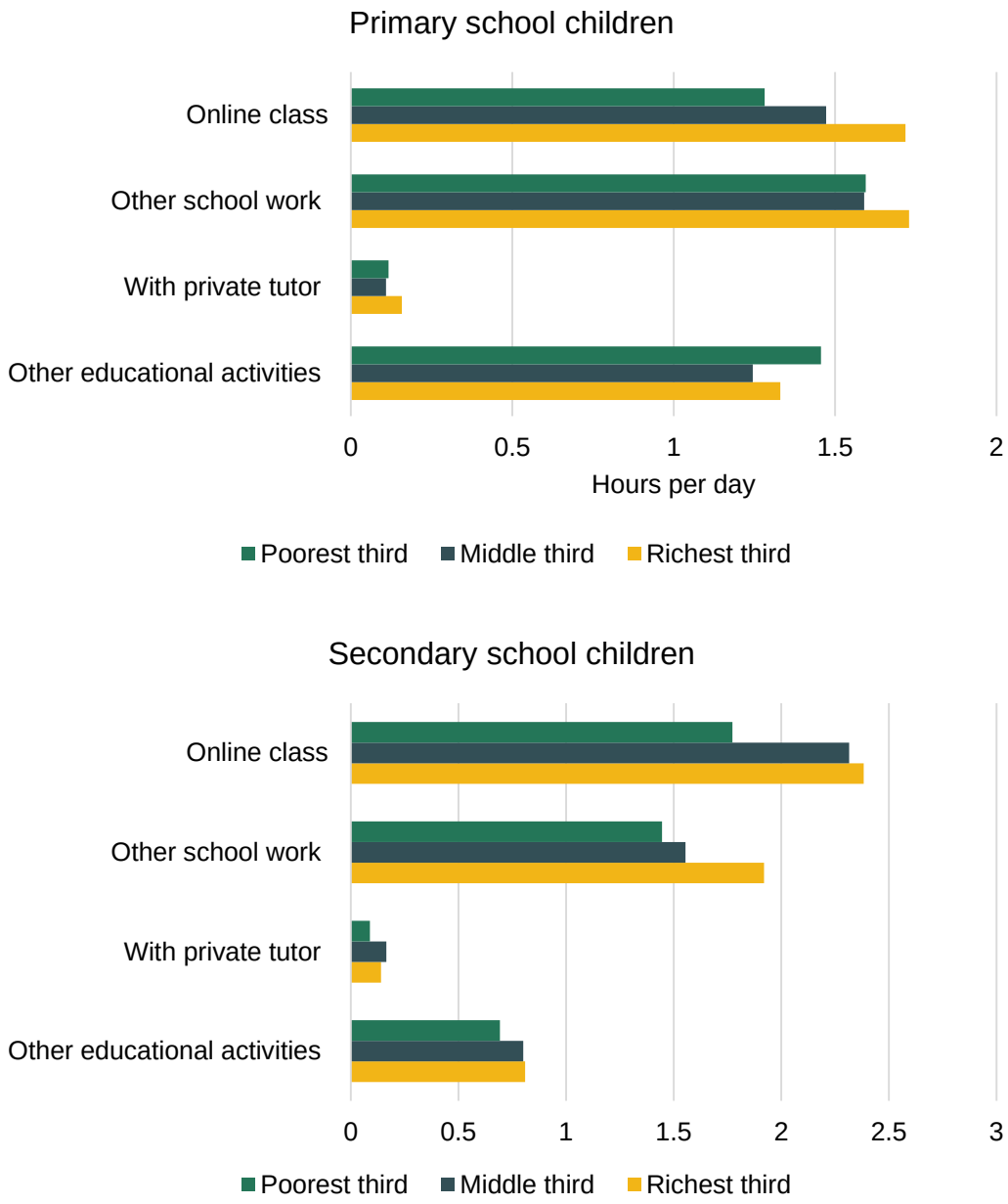



Figure 5.6 provides further details about socio-economic gaps in activities included in class and non-class time.[17] Almost across the board, children from the poorest third of families spend significantly less time on each educational activity than children from the

[17] We are not able to provide similar figures for 2014–15 because the definition of activities is too different in the UKTUS from the way we have defined different educational activities in our survey.

richest third of families, and these differences are generally larger for secondary school children than they are for primary school children (in line with the results in Figure 5.4). One exception to this pattern is the fact that primary school children from poorer families seem to be spending more time on 'other educational activities' than primary school children from richer families. This could reflect the fact that parents in the poorest third are 'compensating' for the fact that their schools are providing fewer at-home resources than the schools of their more affluent peers by providing other educational activities at home. We return to this point in the next chapter.

**Figure 5.6. Gaps in educational activities, by family income (terciles)**



# 6. Home learning support during lockdown

How much and how well children will have learned during the lockdown depends on the type of learning environment their families can provide at home and the support that their schools will have provided. Important aspects of the home learning environment include children's ability to access the resources provided by their school, including whether they have access to a suitable device and a stable Internet connection. Another important factor is whether children have access to a space to study. Finally, families differ in how much time and support parents can give to their children's home learning. To some extent, this support can be provided by either parents or schools – a video chat with a teacher to ask a maths question might be preferable to asking a parent. But, particularly for younger children, some of the supervision required to make home learning work is more easily done in person. In this chapter, we explore each of these three dimensions – access to technology, access to space at home, and parental support – before turning to the resources provided by schools

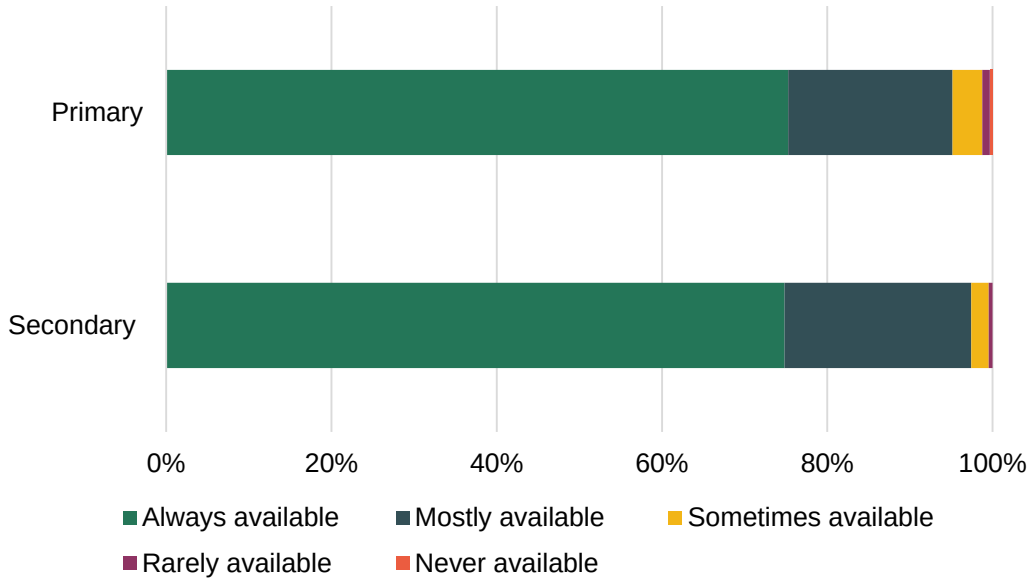
## 6.1 Resources at home

Throughout the lockdown, there was significant attention paid to the importance of online resources for facilitating home learning. A prerequisite for accessing these materials was a stable home Internet connection. Figure 6.1 shows that most children in the families that took part in our survey did have Internet access at home; over 95% of children always or mostly had Internet available, and only about one out of every 200 secondary school children rarely or never had Internet access. While these figures pertain to the child's (not the parent's) Internet access, because our survey was administered online, it would only have captured families where the parents had at least some Internet access. These figures could therefore slightly overstate the Internet connectivity of our sample, although recent data from

representative samples of households with children in the UK indicates that this is unlikely.[18]

While most children have Internet access, there are bigger differences in the devices they use to access their school work (Figure 6.2). Given the small size of a phone screen, accessing school work via a computer or tablet is likely to be more conducive to learning and completing school assignments than via a phone. Among primary school children, only around half have access to a computer for school (either their own or shared with someone else in the family). The most common device used is a tablet, used by 39% of primary school children. One in ten children in primary school relies on a phone or has no device at all with which to access school work.

### Figure 6.1. Access to Internet

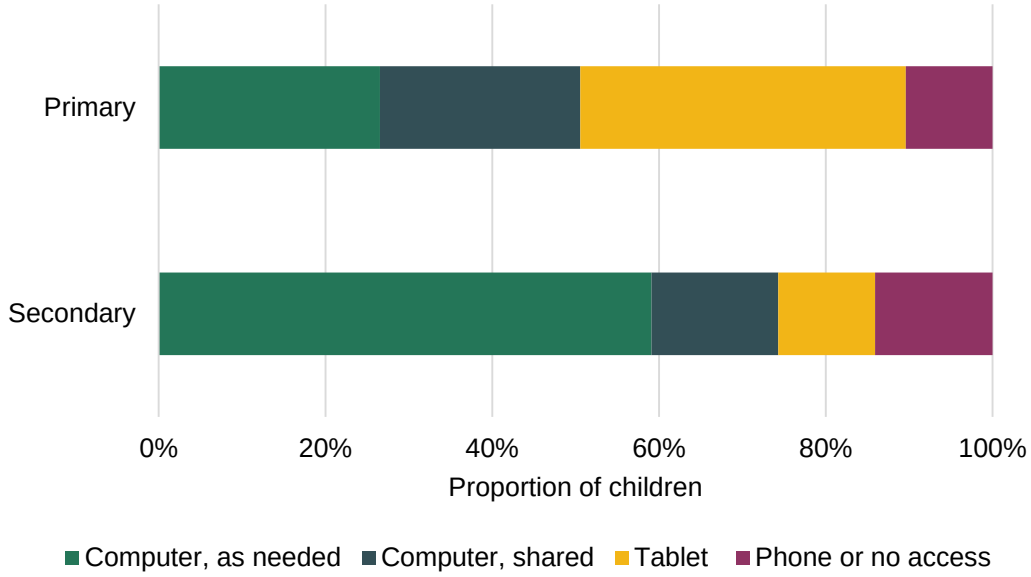



Secondary school children were more likely to have access to computers, especially their own computers. However, these older children were also more likely to have neither a computer nor a tablet: 14%, or one in seven, relied on a phone or had no device to access school work. Given the greater importance of online activities in the resources provided by secondary schools (as shown in Section 6.2), the government's announcement in late April that it would provide laptops and tablets

[18] The latest wave (Wave 9) of Understanding Society asks respondents about Internet connection. Focusing on a sample of households with children, we find that 98% of households report having a connection to the Internet. The Office for National Statistics (ONS) also released statistics about the Internet access of households with children in 2019 and found that 99% of households had fixed broadband connection, 73% had mobile broadband connection, and 1% only had mobile broadband connection (ONS, 2020).

to disadvantaged Year 10 children and vulnerable children should have been particularly welcome. By mid-June, only 115,000 of the 200,000 ordered devices had been delivered to Local Authorities or academy trusts however, casting some doubt over the effectiveness of the scheme at bridging the technology gap affecting these children (Department for Education, 2020).

### Figure 6.2. Device used by primary and secondary school children to access school work

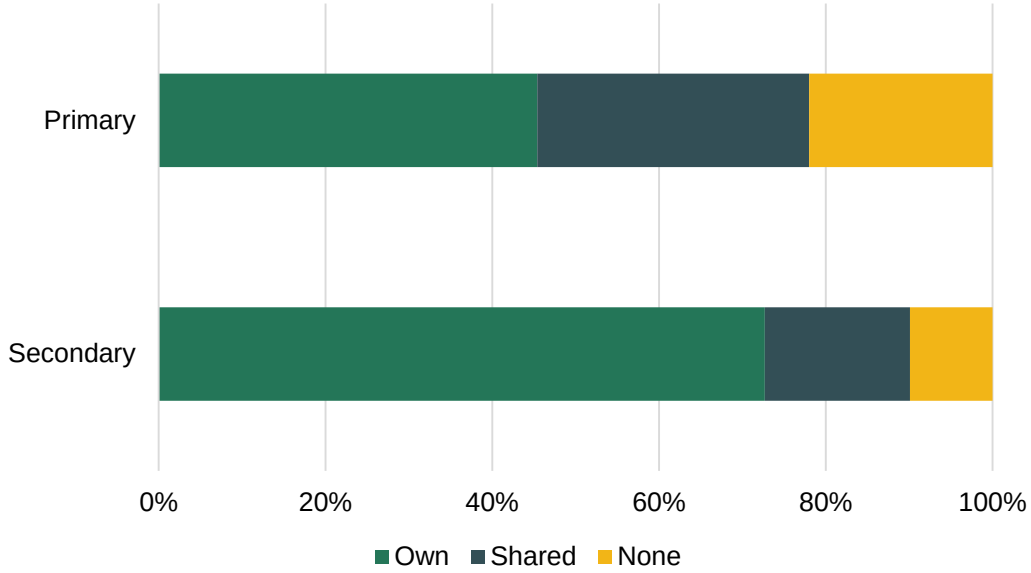



While access to technology and Internet has received a lot of attention as a potential barrier to productive home learning, much less has been said about availability of appropriate study space at home.

Figure 6.3 shows that fewer than half of primary school children have their own dedicated space to study at home. While a third of children have a shared study space, 22% of primary school children do not have access to a dedicated study space. At secondary school, 10% of children do not have access to a dedicated study space.

This is likely to be a particularly worrisome constraint to home learning. Evidence suggests that children need environments where they can focus in order to master difficult new concepts. And, while the government can intervene to provide extra resources such as laptops to children who need them, in the short term there is little that policy can do to mitigate space constraints within people's homes.

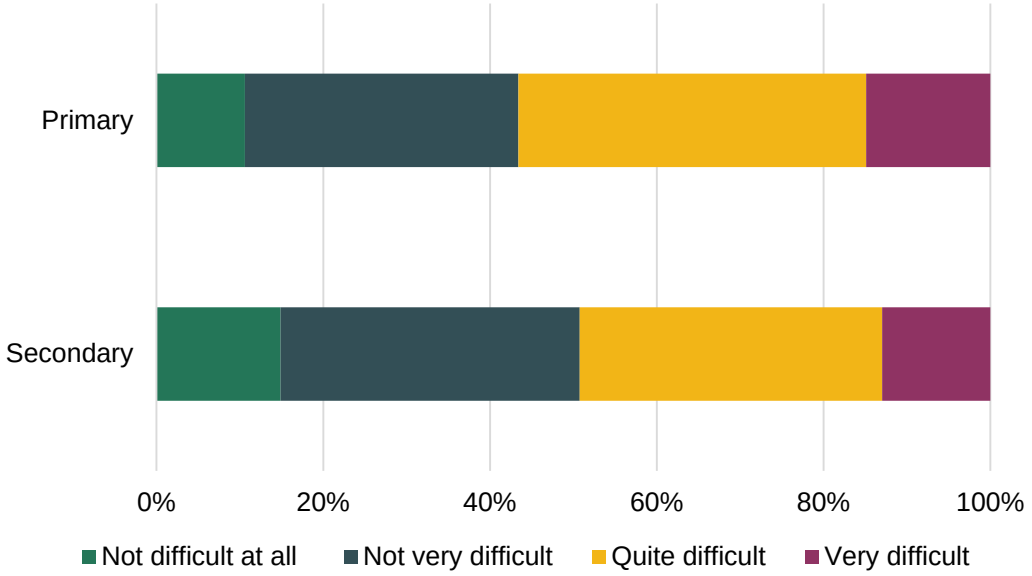
### Figure 6.3. Access to dedicated study space




Finally, a third resource that children have available to help their home learning is support from their parents. In our survey's time use diary, we asked the responding parent to tell us who the child was with, in each hour of the day. Using this information, we find that an adult (most often the parent) is reported as being with the child in most hours when the child is reported doing some learning (87% of all hours with some learning for primary school children versus 53% for secondary school children). This evidence suggests that a lot of at home learning is done with the help of (or at least in presence of) a parent.

Despite the fact that parents are spending a lot of time with their children while they are learning, over half of parents report that they are finding it quite or very difficult to support their child's learning, with parents of primary school children struggling slightly more than those whose children are older (Figure 6.4). This measure is a holistic measure of how challenging parents are finding it to support their children's home learning. It will pick up a number of factors, including the parents' time constraints; their child's ability to work independently; their level of comfort with the material their children are learning; and the resources that their children's schools are providing.

**Figure 6.4. Parents' perceived difficulty to help children with home learning**




## Differences by family income

In Chapter 5, we have shown that children from better-off families have been spending more time on average than their less well-off peers on educational activities each day. In this section, we document that these socio-economic inequalities also affect the resources that children have available at home to support their learning.

Among primary school children, as Figure 6.5 shows, 15% of children in the poorest third of families have no access to a computer or tablet, two-and-a-half times as many as the richest third. The inequalities are also evident at secondary school, around one in ten children in the richest third of families uses a phone or has no device to access school work, compared to nearly one in five of their classmates in the poorest third of families.

**Figure 6.5. Device used to access school work, by family income**

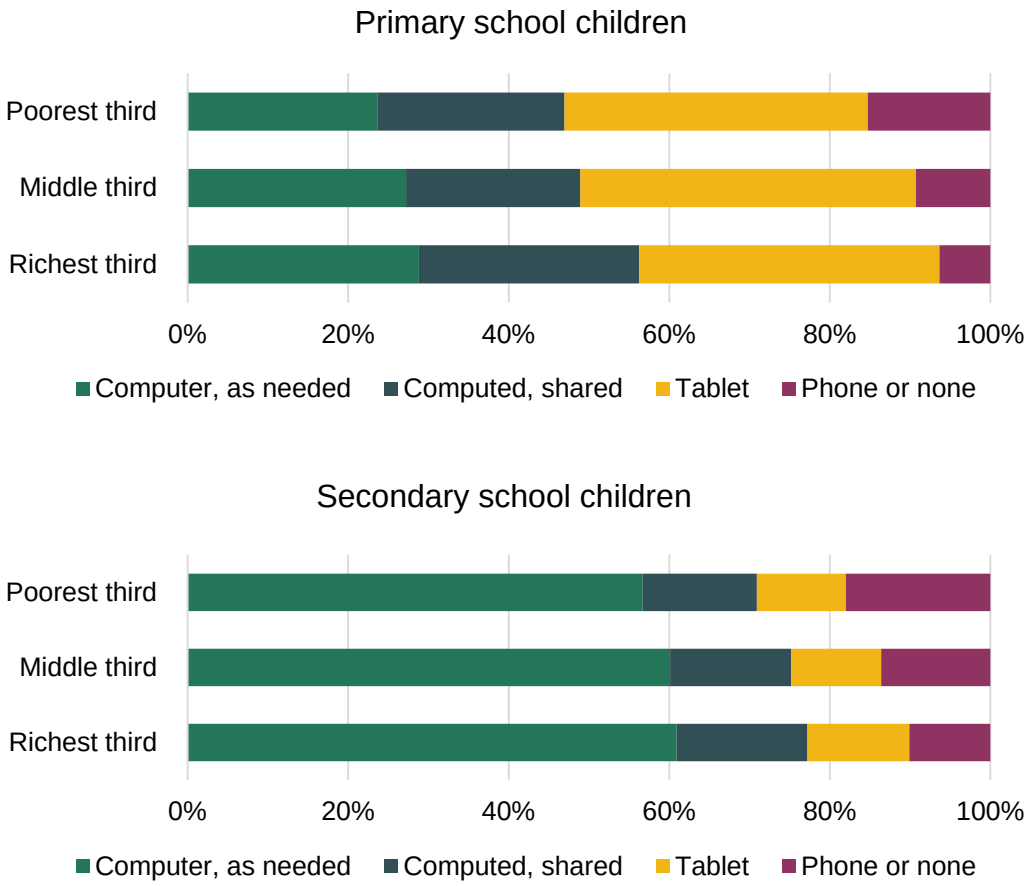
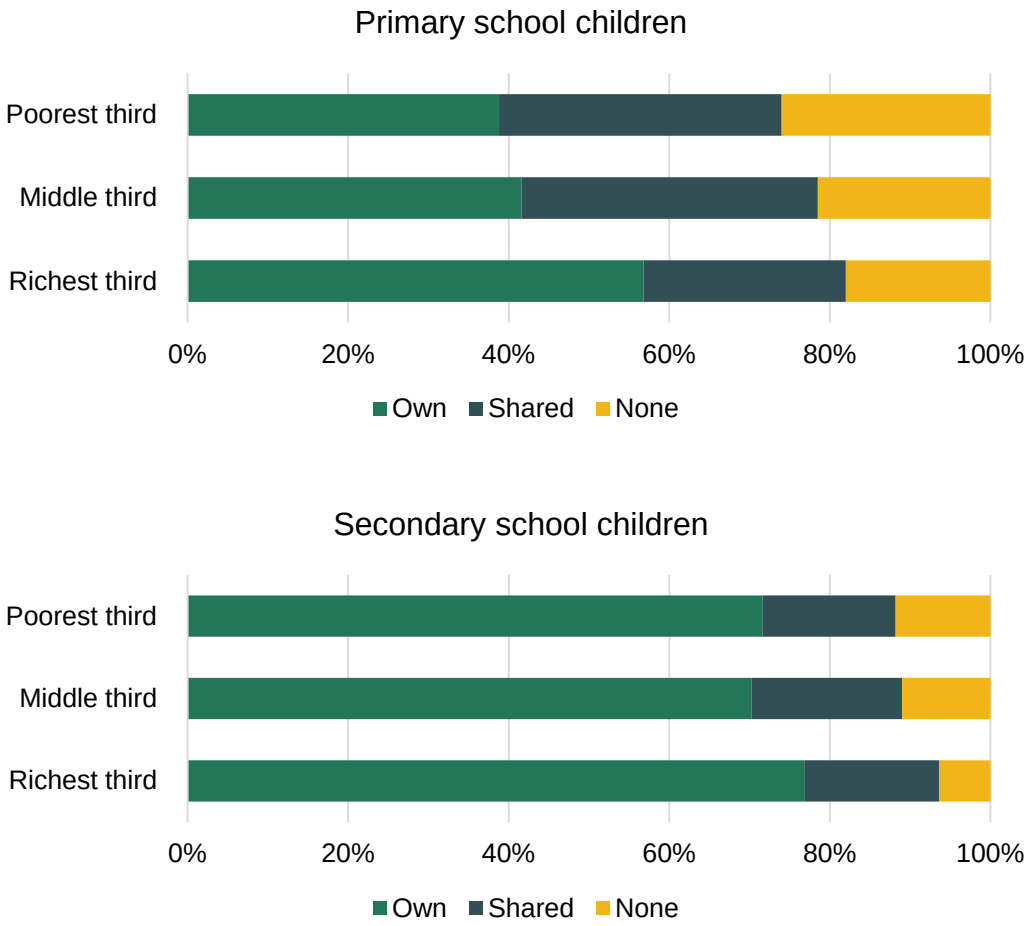



Figure 6.6 shows that children from better-off families are also more likely to have access to a study space, whether it is shared or not. Among primary school children, 18% of children in the richest third of families do not have access to a study space, compared to 26% of their classmates in the poorest third of families. Among secondary school children, the proportion of children who do not have a study space is a lot smaller than among primary school children, but children in the poorest third of families are twice as likely to have no study space as their counterparts in the richest third of families (12% versus 6%).

**Figure 6.6. Access to dedicated study space, by family income**




Finally, we explore inequalities by family income in how difficult parents are finding it to support home learning. These patterns look very different at primary and secondary school: among those with primary school children, the fraction of parents who find it quite or very difficult to support their children's home learning is high (between 55% and 60%) and relatively stable across income groups. For secondary school children, however, 40% of parents in the richest third are finding it hard to support home learning, compared to 56% of parents in the poorest third.

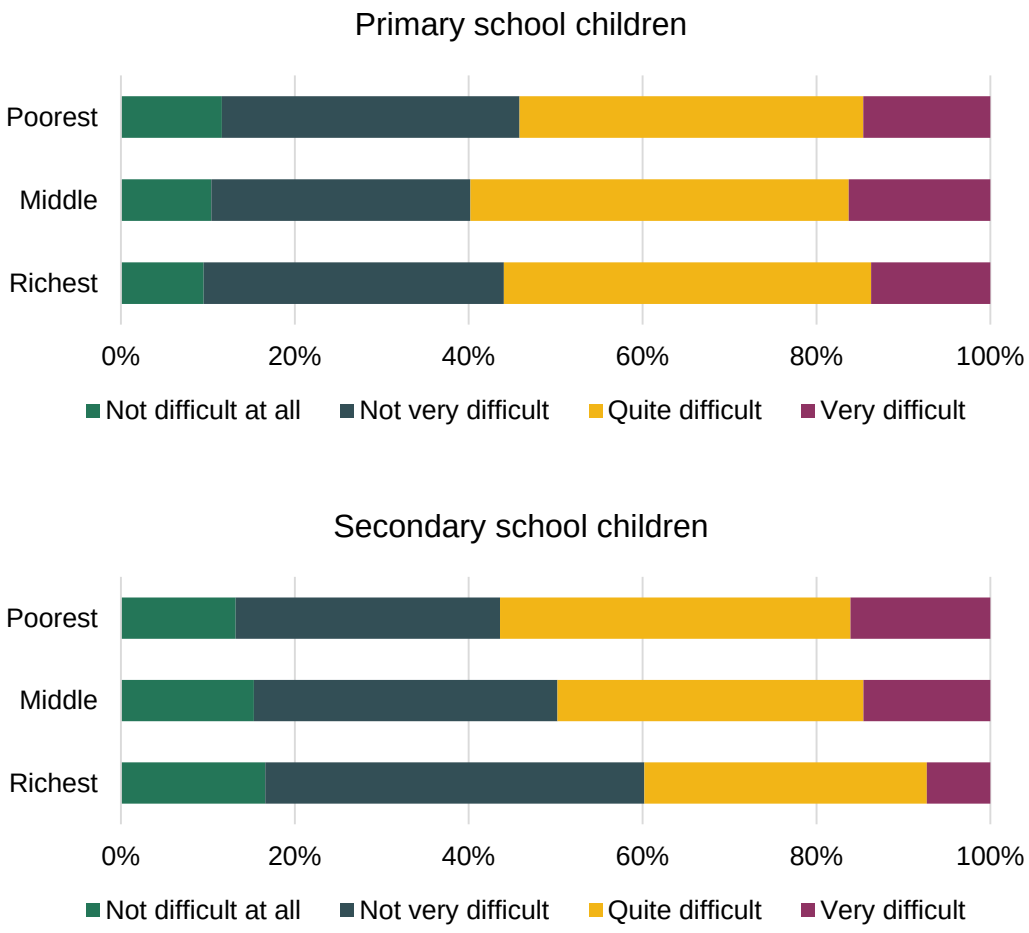
While we did not ask parents about their exact engagement in their children's home learning, these findings are consistent with the findings of a survey of school leaders, which the National Foundation of Education Research ran in early May 2020. They find that just over half their pupils' parents were engaged with their children's home learning and that parental engagement was significantly lower among the parents of secondary school children than primary school children (Lucas, Nelson and Sims, 2020).

These patterns could indicate that the type of support that children need changes as they get older. Younger children might need more in-person supervision to help

them stay on-task with their school work, which might be difficult for all parents, given the various constraints they face on their time under lockdown. Moreover, even if most parents master concepts taught in primary school, it may be the case that, without proper pedagogical training, they find it difficult to teach these to their children.

In secondary school, the need for in-person supervision is likely to fall somewhat as older children can be more independent in completing their school work. However, when parents are actively helping their children with school work – answering questions or teaching new concepts – this is likely to become more challenging as children get older and learn more advanced material. Parents from poorer families might struggle more to offer this kind of support to their children, either because they are less comfortable with the material themselves or, as we will see below, because their children's schools are not providing as many teaching resources, such as online lessons.

### Figure 6.7. Difficulty in supporting home learning, by family income



In general, our analysis of differences in home learning resources highlights two key points for policy. First, we find evidence that children from less well-off families have fewer resources at home to support their learning, and so might not be able to make full use of the resources provided by their schools. This means that inequalities in home resources could have compounded inequalities in how much time children spent on educational activities during lockdown.

The second point, though, is that this is not just a problem for poorer families. Most government support (e.g. the programme to provide some children with laptops) has focused on the most disadvantaged children (typically those in the bottom sixth or so of the family income distribution). But the results in this section highlight that, while family income is important, it is far from a perfect predictor of which children lack the resources for effective learning at home.

## 6.2 Resources from the school

The home resources described in Section 6.1 – technology access, dedicated study spaces and parental support – are important factors in children's learning during the lockdown. However, while these resources can help children to make more effective use of their learning time, in most cases they cannot substitute effectively for the professional teaching that children receive at school.

One of the most striking features of home learning during lockdown was how suddenly it was implemented, and how fragmented and unequal the experience has been. National guidance has been thin on the ground, and it has largely been left to schools and even individual teachers to determine the aims of and resources for home learning among their pupils. This has led to a home learning landscape where even schools that are geographically close offer very different packages of support for home learning.

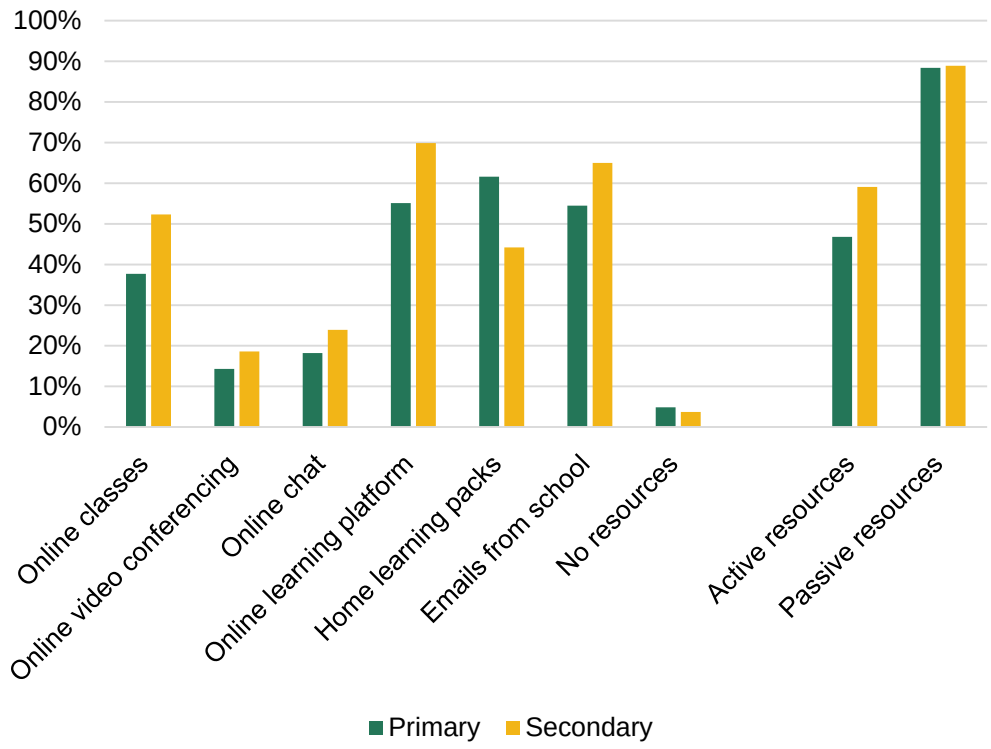
Nevertheless, some clear patterns have emerged. Early surveys of teachers, for example by TeacherTapp,[19] documented enormous differences between the resources provided by schools for older and younger children, and for those in the state and private sectors. In this section, we use the data from our representative survey to explore the availability of school resources in greater detail, highlighting how these differ by socio-economic status.

[19] See, for example, https://teachertapp.co.uk/what-does-distance-learning-look-like-in-england-and-where-will-teachers-kids-be-today/.

## Home learning resources provided by schools

Figure 6.8 shows the share of parents who report that their child's school is providing various home learning resources to children. We asked parents to report each that their child's school was providing, whether or not they were able to use it.[20]

### Figure 6.8. Home learning resources provided by schools




Note: Active learning activities include online classes, online video conferencing and online chat.

Overall, around 8% of children were not being offered any support through online classes, video or text chat, online learning platforms to set and collect work, or home learning packs. While this is a relatively small group of children, these children are likely to be significantly disadvantaged from their time in lockdown, without access to school resources to support their learning or maintain ties to their school.

However, just over half of children – 59% of secondary and 47% of primary school children – were offered some form of active learning (which includes online classes, video

[20] As in the analysis of home learning resources, we exclude from this analysis children who reported being in school the day before the survey. We did so because the parents of these children may not necessarily have an accurate idea of the home learning resources provided by their schools.

conferences or chats). The level of online support delivered is significant enough to make the issues of access to devices and Internet, raised in Section 6.1, important to children's outcomes.

The fact that only around half of children were receiving some of these active resources highlights the very different levels of support that schools gave their pupils during lockdown. Initiatives, such as the Oak National Academy, that help to make (pre-recorded) online lessons more widely available are an important policy step. Schools should consider whether they would be able to make use of these resources should further lockdowns be required in the future, either on a local or a national level.

Relatively few children were offered real-time video conferencing or chatting with teachers. These resources could facilitate learning, but they might also be helpful for children's social and emotional well-being, if they help to preserve a connection with their school, their classmates and their teachers.

## Differences by family income

The different learning experiences that children are going through should concern policymakers: children who have had very different levels of support from their schools during the lockdown will eventually sit the same exams (and sooner rather than later for some year groups), so inequalities in school resources might translate into more lasting inequalities in educational attainment and qualifications.

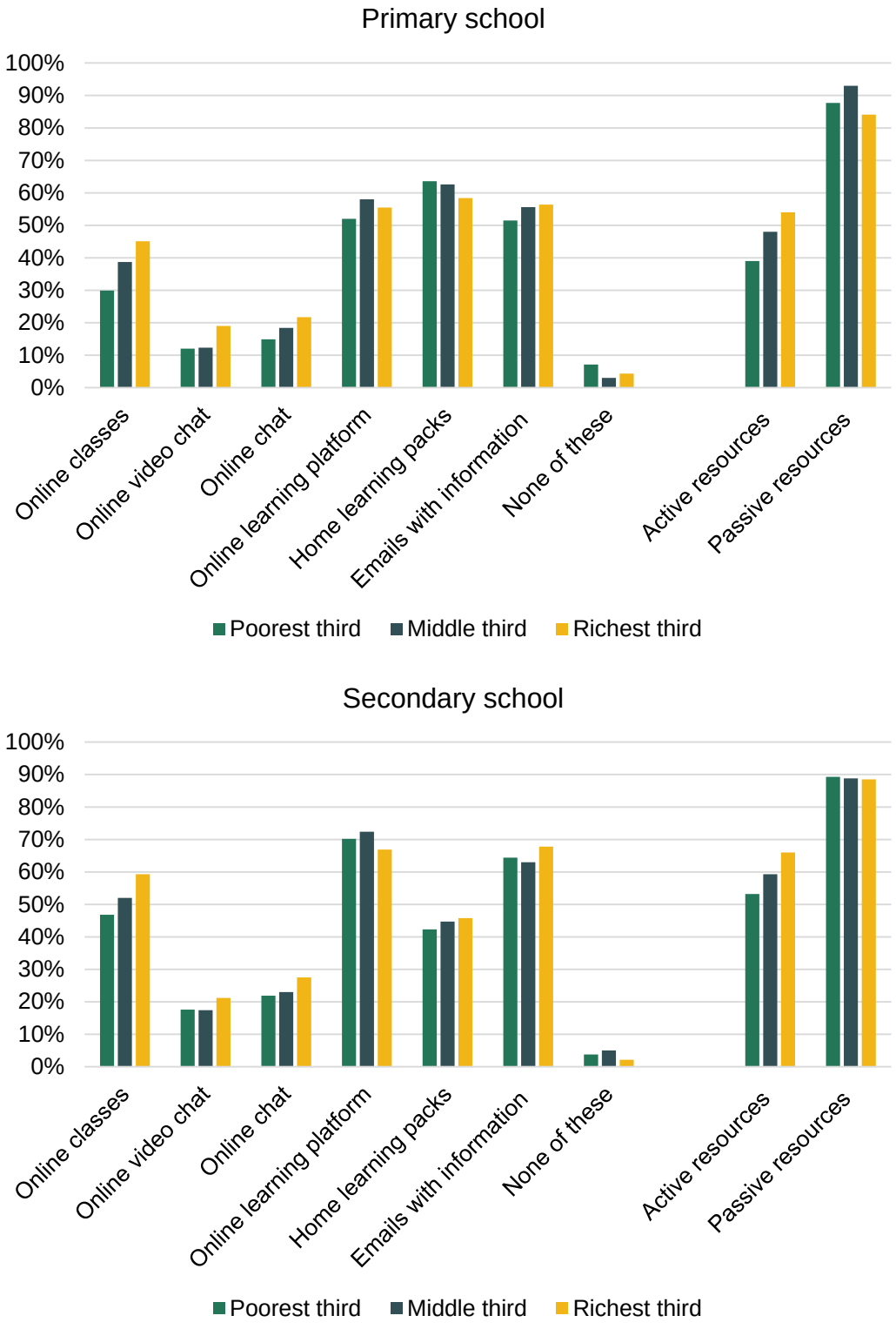
But these inequalities might be even more concerning if they map on to existing inequalities in family income (and hence on to the inequalities in learning time and home resources already documented).

Figure 6.9 shows that there are inequalities by family income in access to some school resources. Most notably, family income is an important predictor of whether a child's school offers active learning resources. Among children in the third of highest-earning families, 55% of primary school children and 65% of secondary school children have been offered at least one active learning resource; for their peers in the poorest third of families, it is just 39% and 53%.

Similar inequalities are obvious within each type of active learning resource: children from richer families are more likely than children from middle-income families to have been offered online classes and online chatting, and children from middle-income families are more likely to have had access than children from poorer families. For online video chats, the inequality is between the richest third of children and the rest.

The availability of lower-tech learning resources (such as online platforms to set and collect work, and home learning packs) is much more even. Notably, it is not the case that access to these resources is a mirror image of access to the active learning resources; instead, children from the poorer third of families are almost twice as likely as children from the richer third to receive none of these school-based resources.

**Figure 6.9. Home learning resources provided by schools, by family income**




Note: Active learning activities include online classes, online video conferencing and online chat.

# 7. Discussion

The COVID-19 crisis has created monumental challenges for families with children, for whom the economic disruption of the lockdown came hand-in-hand with the shift to home working (for some parents) and home learning (for most children). The disruption to parents' and children's routines is on an unprecedented, and hitherto almost unimaginable, scale. The suddenness of these twin shocks, and the removal of other informal support networks such as children's grandparents, have exacerbated the challenges of this period and made it still harder for parents to balance their work and their home commitments.

In this report, we present a snapshot of how families with school-aged children in England spend their time under these conditions. The patterns that we document reflect the very different experiences that families have in the short term, and indicate the lessons that can be learned for 'next time', if schooling continues to be disrupted or further lockdowns are imposed in the coming months. Our analysis also sheds light on places where policy can support families in the medium term and highlights the ways through which the COVID-19 crisis may have longer-term consequences on children's outcomes and the inequalities between children.

In this chapter, we discuss the findings set out in this report to address each one of these in turn.

## 7.1 Changes to families' time use

The economic effects of the ongoing crisis are clear in the changing patterns of parents' time use. Many parents lost their job, quit or were furloughed and so were not working over this period. Even among those who continued to work (often from home), working appears to have become more challenging: average time working fell from 6.5 hours to less than 3 hours, and about a third of those working hours were spent juggling work and childcare.

One of the biggest, and most predictable, changes was the huge increase in time that parents spent with children. It is unlikely, however, to have been of the same quality as time with parents before the pandemic. Parents are facing different sources of stress, including balancing work commitments with supervising home learning and doing childcare. There are also new financial pressures and worries about the future for many, with high rates of job loss and reductions in household earnings, and potentially concerns for the health and well-being of their family and other loved ones.

Predictably, school closures and the wider lockdown greatly increased the time that children spend at home. We find that the average time children spent on educational

activities decreased by 90 minutes for primary school children and by almost two hours a day for secondary school children. Compared with a six-hour school day (inclusive of lunch) in normal times, this change is non-negligible, especially because our measure of educational activities also includes learning activities that children typically do on top of the school day, such as homework or music lessons.

And even during the time that children spend on education, they face very different – and very unequal – learning environments and resources. Some had a dedicated space for learning while others had to manage without this. Some had the support of another adult in the household or teacher through online classes while others were left to complete work set by the school through home learning packs or online learning platforms on their own.

## 7.2 Longer-term consequences

Although it will be a while before we understand what the long-term effects of this crisis will be on children's learning, existing evidence on how time use and the support that children receive affects their learning, combined with our estimates of how these have changed during lockdown, allow us to highlight some *potential* consequences.

First, although we will not have direct measures of parental well-being until the next round of data collection, our data suggest strongly that parents are likely to be under considerable strain. Across the board, parents have spent more time with their children and have taken on new responsibilities for managing their schooling, which many worry they have not managed adequately. In addition, some parents have tried to do this at the same time and in the same place as they are working, while others have the stress of financial worries from having lost or left their jobs.

There is a large literature to suggest that parental stress can have adverse effects on children. These impacts can be felt from mothers who are stressed while pregnant (e.g. Aizer, Stroud and Buka, 2016; Persson and Rossin-Slater, 2018), in childhood (Crnic, Greenberg and Slough, 1986) and in adolescence (e.g. Gutman, McLoyd and Tokoyawa, 2005; Oreopoulos, Page and Stevens, 2008). We may worry that these effects will be even stronger in the context of this pandemic because children are spending so much more time with their parents and have little access to their wider social and support networks, which in 'normal' times might serve as protective factors.

Second, the loss of instructional time – delivered by teachers working to the national curriculum on which children will eventually be examined – is likely to create learning losses. For example, Pischke (2007) finds that West German children who, due to a reform, had two school years with approximately 40% less instructional time than normal were more likely to be held back a grade and less likely to enter academic tracks in secondary school (though long-term earnings were unaffected). Looking across around 50 countries, Lavy (2015) finds that an extra hour of instructional time each week in the main subjects increases test scores by around 6% of a standard deviation, equivalent to around a month of expected

progress.[21] Other studies find that even a handful of missed school days due to inclement weather lower test results measurably (Marcotte and Hansen, 2010; Marcotte and Hemelt, 2008).

While there is a non-negligible reduction in the time that children spent learning during the time of school closures, there is also significant variation in how that time was spent. 8% of primary school children spent at least four hours a day in online classes, during a period of up to three months[22] in which 30% of children had no online classes or direct interaction with their teachers. The evidence on instructional time would suggest that even with parental help, this latter group of children are likely to be severely disadvantaged relative to the children in the former group over the longer term.

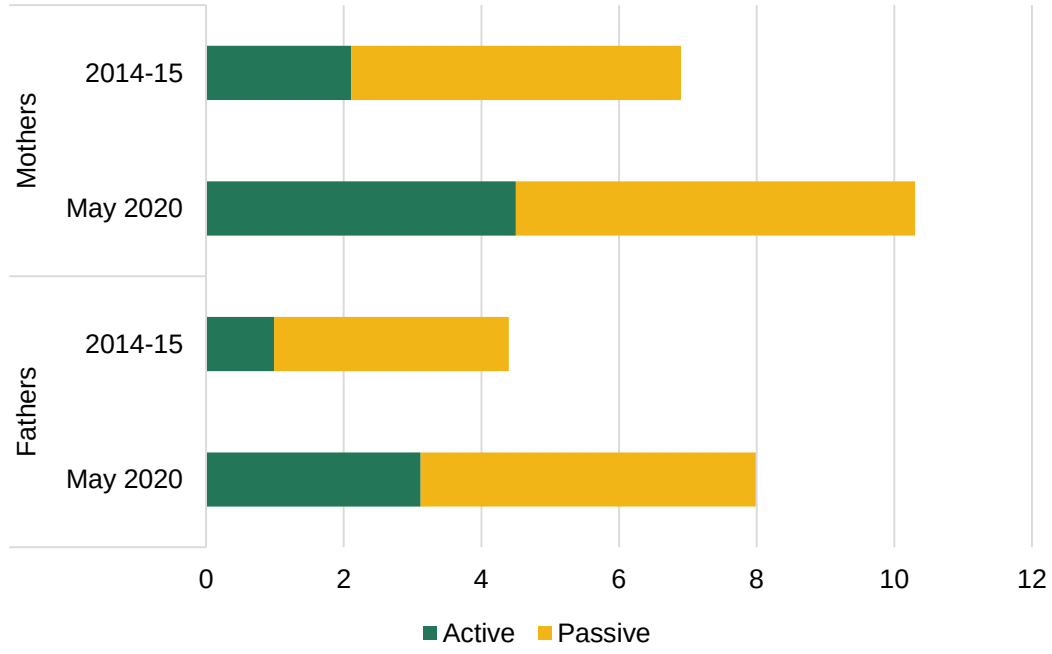
How harmful the reduction in formal learning time will end up being for children's educational outcomes will depend on the extent it is replaced by home learning and on how good a substitute home learning will have been. While there is little evidence that can suggest a direct answer to this question, we do know that children, especially younger children, can benefit developmentally from spending time with their parents (e.g. Carneiro and Rodrigues, 2009; Andrew et al., 2018; Attanasio et al., 2020). However, evidence from around the world emphasises that this effect is driven by time spent on educationally oriented and structured activities, rather than unstructured and passive time with parents (Hsin and Felfe, 2014; Fiorini and Keane, 2014; Del Bono et al, 2016).

We have shown in the report that childcare has increased from 7 to 10 hours per day for mothers and from 4 to 8 hours per day for fathers, and we can assess how much of this time is 'active' (for example, playing a game, chatting or doing home learning) versus 'passive' (for example, supervising a child as they watch TV or keeping an eye on them as they play in the same room). As we see in Figure 7.1, parents are not only doing considerably more of both types of childcare, but the fraction of total childcare spent on active childcare seems to have increased during the lockdown, for both mothers and fathers. At least for some children, the lockdown may have positive effects on children's cognitive and socio-emotional skills by 'forcing' parents to more actively interact with their children.

[21] See the Education Endowment Foundation's months of additional progress measure, at https://educationendowmentfoundation.org.uk/help/projects/the-eefs-months-progress-measure/.

[22] Assuming that what we observed in April persisted throughout the time during which schools were closed.

**Figure 7.1. Hours spent on active and passive childcare, before and during the lockdown**




## 7.3 Are some children more likely to be affected than others?

Of course, a key concern, and the main motivation behind this project, is that this crisis will not only have adverse effects on children's development and learning, but will also exacerbate socio-economic inequalities in these children.

The data clearly show a socio-economic gradient in the time that children spent on learning activities during the lockdown. Moreover, compared with a typical school day back in 2014–15, this gradient could have widened, especially for primary school children. While this alone is not sufficient for concluding that inequalities will *widen*, a number of factors suggest that there are reasons to be concerned.

In regular times, a large part of children's learning takes place at school. While the schools attended by children from higher-income families tend to be rated better overall, the 'value added' of schools is similar regardless of the characteristics of their pupils (Hutchinson, 2016). Further, all schools are regulated to meet minimum standards, and all teachers are teaching to the same curriculum. However, there are strong pre-existing inequalities in access to extra-curricular support such as music lessons or private tutoring, and in the time that children spend on educational activities outside the classroom.

When schools are closed, there is not only more scope for children's experiences to differ, but also for these experiences to matter for children's outcomes even more

than they did before. As we have documented, during lockdown, schools have offered very different packages of resources, and there are important inequalities in children's home learning environments. We have also shown that parents in poorer families are more likely to face stress from job loss or the loss of income, compounding the additional financial pressure of having all of their children at home. Meanwhile, parents who continue to work (regardless of their level of income) face potentially the biggest time crunch during lockdown. On average, poorer parents of secondary school children were more likely to report finding it difficult to provide their children with the home learning support they need.

Therefore, the COVID-19 crisis is not only causing children to lose the protective and (at least partly) equalising environment of schools, but it is also magnifying the importance of the home environment for their learning. In this situation, it seems very likely that the combination of differences in home environment and school support will exacerbate inequalities in children's outcomes.

## 7.4 Lessons for 'next time'

While the data we have collected will be helpful in understanding the impact of the crisis on children's outcomes in the medium term, the findings reported here provide important takeaways for policymakers to consider in the short term.

It is highly unlikely that the next academic year is going to look like those before the pandemic. While the government has announced its intention for all children in England to return to school from September (and to enforce this where necessary), a continued need for social distancing, the risk of outbreaks within individual schools, and the potential for further local or national lockdowns might see a continued role for home learning.

Our findings suggest that important improvements to how this is managed could be made.

- Schools should be aware that many parents find it difficult to support their children's home learning, especially parents of primary school children. This is concerning not only because that is bad for children's welfare but also because it suggests that many children are not getting adequate support.
- With more time to prepare ahead of an eventual future lockdown, schools may want to prioritise 'active' learning resources over 'passive' ones. While passive learning resources (such as home learning packs and school work set on online platforms or by email) may be more widely accessible, they are also likely to require more parental input. Most parents are unlikely to be as effective at teaching their children and they face time constraints. This means that children may end up spending less time on learning, while it creates even more pressure on parents. Our results also suggest that the 'digital divide' affects fewer children than other inequalities in home learning resources. It is also easier for policy to correct than inequalities in parental time and ability to support work.
- Without coordination at the local and national levels, schools have responded to the crisis by offering enormously different packages of home learning

materials. This has led to substantial inequalities along socio-economic lines. There are potentially enormous benefits to developing and sharing resources across schools (as the Oak National Academy[23] is doing). These will both improve equity in access to home learning and free up teachers' time to provide more individualised teaching to pupils.

- More broadly, there is need for greater coordination between schools, local government and Whitehall. Different schools serve different communities, so a coordinated response does not necessarily mean the same response. But there is a role for national policymakers in setting out a common set of guiding principles and aims, such as whether children should be expected to cover new material or to only consolidate knowledge while doing distance learning.
- It is difficult to overstate how different the home learning experience has been among different families. Some children spent significant time each day accessing home learning resources, using good technology from dedicated study spaces, with support from their parents, and supplementing this with paid private tutoring in very few cases. Other children have had few or none of these advantages. Most of these challenges are not easily modified by policymakers. Keeping schools open should be seen as a priority to address some of the challenges.

[23] https://www.thenational.academy/about-oak

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