COSMO

COVID Social Mobility
& Opportunities Study

COSMO Technical Note 3

Financial impacts in the aftermath of COVID–19

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The COVID-19 pandemic not only affected the health of millions of people across the country, but also caused financial stress or even economic crisis to many families. The lockdown during the COVID-19 pandemic has caused unemployment to some families (Coibion et al., 2020; Stevenson et al., 2020) and reduction in family income through the furlough system (ILO, 2020). However, the financial situation in households and the financial impacts experienced by families during the COVID-19 pandemic differ depending upon individuals' characteristics, including socioeconomic status and ethnicity.

Furthermore, these financial impacts may have further implications for young people. These might be direct, for example, they might have undermined some families' ability to provide financial support to their children to go to university, leading to changes in young people's plans to apply to university. There could also be indirect effects. For example, the financial impacts that some pupils experienced at home might affect their learning experience, leading to some pupils feeling that they have fallen behind their classmates as a result of the COVID-19 pandemic. In this note, we document differences in financial impacts of the COVID-19 pandemic – both direct and indirect – on families and young people a focus on poverty and ethnic background.

One of the indirect effects of financial impacts experienced as a result of the COVID-19 pandemic may be on pupils' educational attainment. We also explore these potential financial impacts on pupils' GCSE educational attainment, using data from Wave 1 of the COVID Social Mobility & Opportunities study (COSMO) linked with data from the National Pupil Database (NPD) for COSMO cohort members who provided consent for this linkage (~75% of the cohort).

Data and analysis

This note uses data from COSMO Wave 1 linked with the Department for Education's National Pupil Database. COSMO participants are a stratified, clustered probability sample of young people who were in Year 11 in academic year 2020/21, who then participated in the Wave 1 survey in academic year 2021/22, along with a main parent respondent. Weights are applied to the analysis to account for over-sampling of disadvantaged harder-to-reach groups and initial non-response by young people (where analysis is based on a young person report) or young people and their parents (where analysis is based on a parental report).

Table 1 to Table 3 below summarise the distribution of the sample by FSM eligibility group and ethnic group.

Table 1 Percentage of sample in each Free School Meal (FSM) eligibility group in Year 11

FSM eligibility group	%
Not eligible for FSM	71.4
Eligible for FSM	28.6
Total	100

Notes. Analysis is weighted to account for sampling design and non-response. N = 9,235

Table 2 Percentage of sample in each Free School Meal (FSM) eligibility group in the last 6 years

FSM eligibility group	%
Not eligible for FSM	60.9
Eligible for FSM	39.1
Total	100

Notes. Analysis is weighted to account for sampling design and non-response. N = 9,235

Table 3 Percentage of sample in each ethnic group

Ethnic Group	%
White	76
Mixed	5
Asian	11
Black	6
Other	2
Total	100

Notes. Analysis is weighted to account for sampling design and non-response. N=10,089.

Aspects of this analysis use administrative data from the Department for Education (DfE)'s National Pupil Database (NPD), where consent was gained for this linkage (73% of young people), with additional weighting carried out to ensure (insofar as is possible) representativeness of analysis using linked administrative data. This work was produced using statistical data from the DfE processed in the Office for National Statistics' (ONS) Secure Research Service (SRS). The use of the DfE statistical data in this work does not imply the endorsement of the DfE or ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets, which may not exactly reproduce National Statistics aggregates.

Our analyses first look at percentages or means of the sample across a range of outcome measures, stratified by their 1) Free School Meals (FSM) eligibility, as an indicator of household deprivation; and 2) ethnic background based on the major ethnic group variable available in the NPD pupil-level census dataset. Specifically, we look across the following outcome measures:

- Financial situation in households before and during the COVID-19 pandemic
- Whether parents lost a job/made redundant or were furloughed
- Food poverty in households
- Food bank usage before and during the COVID-19 pandemic
- Whether the household was overcrowded
- Pupils perceived that they have fallen behind classmates as a result of the COVID-19 pandemic
- Pupils did not plan to apply to university due to cost reasons

The second part of this note focuses on the link between household food poverty and food bank usage and pupils' educational attainment. Our analyses adopt a value-added approach and build linear regression models to evaluate the association between these food poverty-related experiences and young people's GCSE attainment. We link the COSMO survey data to administrative records from the National Pupil Database (NPD), enabling us to control for pupils' socio-economic background and their prior Key Stage (KS) 2 educational attainment.

As our focus is on the food poverty-related experiences in households during the COVID-19 pandemic, the specific variables that we are interested in are:

- Food poverty in households
- Food bank usage

In order to explore the associations between the food poverty experiences during the COVID-19 pandemic and pupils' GCSE educational attainment, attempting to decompose the possible influence of gender, ethnicity, region, socio-economic status (SES), and prior attainment, we fit linear regression models to control for different sets of covariates at each stage. In this way, we are able to examine whether and the extent to which young people's overall academic performance in KS4 can be explained by the food poverty experienced by households, taking into account pupils' background characteristics, region, financial situation in households during the COVID-19 pandemic, and prior attainment.

We begin with Model 0, which only includes the focus food poverty related variable. This performs the important function of examining how the food poverty experienced by households predict the GCSE attainments on their own, i.e., unconditionally. We use full sample size for Model 0 for comparability with the descriptive analysis results.

Model 1 also includes the focus food poverty related variable only, but restricts the sample to be that for which we have data for the covariates we will use in subsequent models, to ensure that changes in coefficients as more covariates are added are not explained by change in sample composition. From Model 1 onwards, covariates (demographics, SES, and KS2 attainment) included in the model are added in a sequential manner (see Figure 1), and we use the consistent regression sample. This provides results on the conditional association between the food poverty experienced by households and their educational attainment after controlling for prior factors. We are also able to understand how additional covariates explain our unconditional relationship by comparing the results to those from the previous model.

Pupils' prior educational attainment is based on their performance in KS2 tests in reading, maths, and Grammar, Punctuation and Spelling (GPS). The outcome of interest in all models is pupils' total GCSE point scores as an indicator of educational attainment in KS4.

Figure 1 below summarises how the models are built and the function(s) of each model.

Figure 1 Linear regression model approach

Model	Independent variable(s) included in the model	Sample	Function(s) of the model

Model 0	The focus food poverty related variable	Full sample	• to examine how the food poverty during the COVID-19 pandemic predict the GCSE attainment on their own • to compare the results with the descriptive analysis results as explored in the first part of this note
Model 1	The focus food poverty related variable	Regression analysis sample	• to explore how the food poverty during the COVID-19 pandemic predict the GCSE attainment on their own for the regression analysis sample
Model 2	Model 1 + demographics (gender, ethnicity, region)	Regression analysis sample	• to explore how the food poverty during the COVID-19 pandemic predict the GCSE attainment when demographics are controlled for
Model 3	Model 2 + SES (parental education, parental occupation, FSM eligibility in the past 6 years)	Regression analysis sample	• to explore how the food poverty during the COVID-19 pandemic predicts the GCSE attainment when both demographics and SES are controlled for

Model 4	Model 3 + Correlated focus variables (i.e. household financial situation during the COVID-19 pandemic)	Regression analysis sample	• to further control for correlated household financial situation during the COVID-19 pandemic, and explore how the food poverty during the COVID-19 pandemic predicts the GCSE attainment when demographics, SES, and the financial situation in households during the COVID-19 pandemic are controlled for
Model 5	Model 4 + KS2 attainment	Regression analysis sample	• to explore how the food poverty during the COVID-19 pandemic predicts the GCSE attainment for pupils with the same background, the same financial situation in households, and same baseline educational attainment

It is important to point here that for COSMO cohort, their KS4 educational attainment is based on teacher assessment. Due to the disruption of the COVID-19 pandemic, GCSE exam cancellation were experienced for COMSO cohort. In England, final grades were primarily provided according to an algorithm established by Ofqual. However, following criticisms of such algorithm due to inaccuracies in the awarded grades (Kelly, 2021; Paulden, 2020), grades were instead based on teacher predicted outcomes, historical data on school performance and cohort-level prior performance data (Centre Assessed Grades [CAGs]). This method was also met with criticism due to disparities according to pupil characteristics such as socio-economic background (Anders et al., 2021b; Kelly, 2021; Murphy & Wyness, 2020; Paulden, 2020). Studies also highlighted pupils' feelings of uncertainty, confusion and anxiety about exam cancellations as well as a desire for more information on how the system would work to calculate grades and how this would be done fairly (Huband-Thompson et al., 2021; Mylona & Jenkins, 2021). Pupils also highlighted their concern about the legitimacy of their awarded grades (Huband-Thompson et al., 2021).

Results

Differences in financial impacts by Free School Meal (FSM) eligibility

First, we look at differences in financial impacts by FSM eligibility. In this analysis, we use Free School Meals (FSM) eligibility as an indicator of socio-economic disadvantage. Eligibility for FSM is widely used as an indicator of family deprivation. Depending on different contexts, we explore the patterns using two FSM eligibility-related indicators: 1) whether the pupil was eligible for FSM in Year 11 during the COVID-19 pandemic; and 2) whether the pupils was eligible for FSM in the previous six years. In most cases, we use the latter indicator, as the length of time a pupil has been eligible for FSM during the school career is a more accurate way of indicating pupil poverty. Meanwhile, FSM eligibility in Year 11 is still a useful indicator, as it indicates household poverty specifically during the COVID-19 pandemic.

General financial situation in households

We begin by exploring how well the households were managing financially during the COVID-19 pandemic by FSM eligibility (Table 4), finding a clear gradient that pupils who were eligible for FSM in the last 6 years were more likely to live in households where parents found it difficult to manage financially during the COVID-19 pandemic.

Table 4 Percentage of households in terms of how well they were managing financially by FSM eligibility in the last 6 years

FSM Eligibility	Comfortable (%)	Getting by (%)	Difficult (%)	Total
Not eligible for FSM in the last 6 years	70.5	22.1	7.3	100
Eligible for FSM in the last 6 years	39.7	36.4	23.9	100
Overall	63.4	25.4	11.2	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. N = 6,170

This pattern is consistent with that in terms of household's financial situation compared to before the COVID-19 pandemic. As Table 5 shows, FSM eligible pupils were much more likely to live in the households whose financial situation was worse compared to before the COVID-19

pandemic than their richer peers. This implies that the COVID-19 pandemic was more likely to be perceived as a negative shock to their financial situation if they already had low levels of income (as indicated by FSM eligibility).

Table 5 Percentage of households in terms of the financial situation compared to before the COVID-19 pandemic by FSM eligibility in the last 6 years

FSM Eligibility	Better/same (%)	Worse (%)	Total (%)
Not eligible for FSM in the last 6 years	65.6	34.4	100
Eligible for FSM in the last 6 years	48.2	51.8	100
Overall	61.6	38.4	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. N = 6,081

These general household financial impacts might be caused by parents having lost a job or having been furloughed,[1] which was became more common during the COVID-19 pandemic. We therefore move on to explore differences in parents' job loss statuses and furlough statuses during the COVID-19 pandemic since March 2020 by FSM eligibility.

Table 6 and Table 7 show a mixed picture. While parents of FSM-eligible pupils were more likely to have lost a job or be made redundant, they were less likely to be furloughed. This, to some extent, implies that families in deprivation have been hardest hit during the COVID-19 pandemic, as they tended to suffer from bigger financial loss by being made unemployed rather than being furloughed, and they were less likely to get financial support from the government during the COVID-19 pandemic.

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[1] The furlough scheme, also known as the Coronavirus Job Retention Scheme (CJRS), was launched by the UK government to support business in paying their employees during the COVID-19 pandemic. It funded businesses to continue paying up to 80% of employees' salary for those employees who would otherwise have been made unemployed.

Table 6 Percentage of households where parents lost a job or made redundant during the COVID-19 pandemic by FSM eligibility in the last 6 years

FSM Eligibility	Parents did not lose a job or made redundant (%)	Parents lost a job or made redundant (%)	Total (%)
Not eligible for FSM in the last 6 years	96.5	3.5	100
Eligible for FSM in the last 6 years	96.2	3.8	100
Overall	96.4	35.6	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. N = 6,807

Table 7 Percentage of households where parents were furloughed during the COVID-19 pandemic by FSM eligibility in the last 6 years

FSM Eligibility	Parents were not furloughed (%)	Parents were furloughed (%)	Total (%)
Not eligible for FSM in the last 6 years	87.7	12.3	100
Eligible for FSM in the last 6 years	91.8	8.2	100
Overall	88.7	11.3	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. N = 6,807

Food poverty and food bank usage in households

Previous studies show that one direct consequence of such economic impacts to families caused by the COVID-19 crisis are food poverty in households and the increase in households who needed to use a food bank during the COVID-19 pandemic[2]. We now focus on food poverty and food bank usage, examining what this situation is like for deprived households.

Differences in food poverty by Free School Meals (FSM) eligibility in Year 11

FSM eligibility in Year 11 is a useful indicator for household poverty especially during the COVID-19 pandemic. Table 8 shows the proportions of those suffering from hunger during the COVID-19 pandemic were eligible for FSM. Overall, for the analytical sample, 18% of them were eligible for FSM in Year 11. However, among all households that suffered from hunger during the COVID-19 pandemic, as high as 45% of them were eligible for FSM during the same period of time. For households that both adults and at least one child suffered from hunger, this figure stands at 43%.

Table 8 Percentage of households experienced hunger by FSM eligibility in Year 11

Food poverty in household	Not eligible for FSM in Year 11	Eligible for FSM in Year 11	Total
Household not gone hungry	86.8	13.2	100
Only adult(s) in household have gone hungry	55.1	44.9	100
Household have gone hungry (including 1+ children)	57.2	42.8	100
All households that went hungry	55.4	44.6	100
Overall	82.0	18.0	100

[2] The Trussell Trust. September 2020. New report reveals how coronavirus has affected food bank use.

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. N = 6,474

This difference in food bank usage is even more significant. Table 9 shows the proportion of those using foodbanks during the COVID-19 pandemic were eligible for FSM. Accordingly, although 18% of the analytical sample were eligible for FSM in Year 11, among those households who used a food bank during the COVID-19 pandemic, as high as 64% of them were eligible for FSM in the same year. This implies that households with young people eligible for FSM in Year 11 were much more likely to have used a food bank during the pandemic.

Table 9 Percentage of households who used a food bank during the pandemic by FSM eligibility in Year 11

Used a food bank during the pandemic	Not eligible for FSM in Year 11	Eligible for FSM in Year 11	Total
No	86.0	14.0	100
Yes	36.2	63.8	100
Overall	82.2	17.8	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. N = 6,396

Overcrowding

We continue to explore whether the households were overcrowded during the pandemic, by FSM eligibility. The definition we use for households being overcrowded is based on the approach taken by the English Housing Survey (EHS).[3] Under this definition, households are considered overcrowded if they have fewer bedrooms available than the notional number needed according to the bedroom standard definition.[4] As Table 10 shows, FSM eligible pupils were more likely to live in an overcrowded household.

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[3] English Housing Survey, Headline Report, 2019-20

[4] The 'bedroom standard' is used by government as an indicator of occupation density. A standard number of bedrooms is calculated for each household in accordance with its age/sex/marital status composition and the relationship of the members to one another. A separate bedroom is allowed for each married or cohabiting couple, any other person aged 21 or over, each pair of adolescents aged 10-20 of the same sex, and each pair of children under 10. Any unpaired person aged 10-20 is notionally paired, if possible, with a child under 10 of the same sex, or, if that is not possible, he or she is counted as requiring a separate bedroom, as is any unpaired children under

Table 10 Percentage of overcrowded households by FSM eligibility in the last 6 years

FSM eligibility	No (%)	Yes (%)	Total (%)
Not eligible for FSM in the past 6 years	89.3	10.7	100
Eligible for FSM in the past 6 years	73.2	26.8	100
Overall	85.5	14.5	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. N = 6,165

Besides these inequalities in the financial impacts, pupils' perception that they had fall behind their peers, and they not planning to apply to university because of financial reasons are likely to be caused by the financial impacts during the COVID-19 pandemic. We then explore these pupil outcomes by FSM eligibility.

Pupils' perception of having fallen behind classmates

The financial impacts discussed so far might have an indirect impact on pupils' own perceptions of whether they had fallen behind classmates as a result of the COVID-19 pandemic. According to Table 11, FSM-eligible pupils were more likely to feel that they had fallen behind their classmates as a result of the COVID-19 pandemic. This can be partly explained by bigger financial impacts their families have suffered, such as food poverty and having to study in an overcrowded household during the school lockdown period. The other possible explanation might be the inequalities in receiving catch-up tutoring (See Table A1 and Table A2 in Appendices).

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10. This notional standard number of bedrooms is then compared with the actual number of bedrooms (including bed-sitters) available for the sole use of the household, and differences are tabulated. Bedrooms converted to other uses are not counted as available unless they have been denoted as bedrooms by the respondents; bedrooms not actually in use are counted unless uninhabitable. Households are said to be overcrowded if they have fewer bedrooms available than the notional number needed. Households are said to be under-occupying if they have two or more bedrooms more than the notional needed.

Table 11 Percentage of young people who perceived having fallen behind classmates as a result of the COVID-19 pandemic by FSM eligibility in the last 6 years

FSM Eligibility	No (%)	Yes (%)	Total (%)
Not eligible for FSM in the last 6 years	68.7	31.3	100
Eligible for FSM in the last 6 years	53.6	46.4	100
Overall	65.0	35.0	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. N = 9,030

Pupils not planning to apply to university due to cost

The other pupil outcome that might be caused by the financial impacts during the COVID-19 pandemic is pupils not planning to apply to university due to cost.

Table 12 shows a clear gradient that FSM eligible pupils were less likely to plan to apply to university, and their self-exclusion from higher education is likely to be caused by financial reasons.

Table 12 Percentage of young people who did not plan to apply to university due to cost by FSM eligibility in the last 6 years

FSM eligibility	Plan to apply to university (%)	Not plan to apply to university due to non-financial reasons	Not plan to apply to university due to cost (%)	Total (%)

		(%)		
Not eligible for FSM in the last 6 years	74.8	20.1	5.1	100
Eligible for FSM in the last 6 years	61.0	28.0	11.0	100
Overall	71.5	22.0	6.5	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. N = 8,746

Differences in financial impacts by ethnicity

After examining the inequalities in financial impacts by FSM eligibility, we then look at these differences by ethnicity.

General financial situation in households

In terms of households' general financial situation by ethnicity, Black and Asian families were more likely to have difficulty managing households financially (Table 13). They were also more likely to report that their financial situation had worsened compared to the before the COVID-19 pandemic (Table 14).

Table 13 Percentage of households in terms of how well they were managing financially by ethnicity

Ethnicity	Comfortable (%)	Getting by (%)	Difficult (%)	Total (%)
White	64.6	24.8	10.6	100
Mixed	50.5	37.6	11.9	100
Asian	62.7	24.4	12.9	100

Black	59.6	25.6	14.9	100
Other	69.9	18.7	11.4	100
Overall	63.6	25.3	11.1	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. N= 6,638

Table 14 Percentage of households in terms of the financial situation compared to before the COVID-19 pandemic by ethnicity

Ethnicity	**Same/better (%)**	**Worse (%)**	**Total (%)**
White	62.7	37.3	100
Mixed	59.5	40.5	100
Asian	55.7	44.3	100
Black	55.0	45.0	100
Other	58.0	42.0	100
Overall	61.5	38.5	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. N= 6,535

Although there is not much difference in parents having lost a job or having been made redundant during the COVID-19 pandemic by ethnicity (Table 15), White parents and parents who belong to the "Mixed/Other" category were more likely to have been furloughed compared to Black and Asian parents (Table 16).

Table 15 Percentage of households where parents lost a job or made redundant during the COVID-19 pandemic by ethnicity

Ethnicity	Parents did not lose a job nor made redundant (%)	Parents lost a job or made redundant (%)	Total (%)
White	96.4	3.6	100
Asian	96.9	3.1	100
Black	96.9	3.1	100
Mixed/Other	96.3	3.7	100
Overall	96.4	3.6	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. The 'Mixed' and 'Other' ethnic groups are combined in a single category for statistical disclosure control reasons. N = 7,415

Table 16 Percentage of households where parents were furloughed during the COVID-19 pandemic by ethnicity

Ethnicity	Parents were furloughed (%)	Parents were not furloughed (%)	Total (%)
White	88.0	12.0	100
Asian	92.2	7.8	100
Black	91.2	8.8	100
Mixed/Other	89.5	10.5	100
Overall	88.7	11.3	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. The 'Mixed' and 'Other' ethnic groups are combined in a single category for statistical disclosure control reasons. N = 7,415

Food poverty and food bank usage in households

Moving on to differences in food poverty by ethnicity, households which belong to "Black" category were more likely to have everyone in the households, including children, suffered from food poverty. Meanwhile, White and Asian families were the least likely to have experienced food poverty since the start of the COVID-19 pandemic (Table 17).

Table 17 Percentage of households experienced hunger by ethnicity

Ethnicity	Household not gone hungry (%)	Only adult(s) in household have gone hungry (%)	Household have gone hungry (including 1+ children) (%)	Total (%)
White	85.4	12.9	1.7	100
Asian	87.1	9.0	3.9	100
Black	77.7	13.3	9.0	100
Mixed/Other	82.4	14.6	3.0	100
Overall	84.9	12.7	2.4	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. The 'Mixed' and 'Other' ethnic groups are combined in a single category for statistical disclosure control reasons. N = 7,000

Black households were more likely to have used a food bank before and during the COVID-19 pandemic (Table 18 & Table 19). They were also more likely to begin to use a food bank since the start of the pandemic if not used a food back before the pandemic (Table 19).

Table 18 Percentage of households who used a food bank during the pandemic by ethnicity

Ethnicity	Did not use foodbank (%)	Used foodbank (%)	Total (%)
White	93.3	6.7	100
Asian	94.6	5.4	100
Black	85.0	15.0	100
Mixed/Other	90.3	9.7	100
Overall	92.8	7.2	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. The 'Mixed' and 'Other' ethnic groups are combined in a single category for statistical disclosure control reasons. N= 6,914

Table 19 Percentage of households who used a food bank by ethnicity

Ethnicity	Not used a food bank during pandemic (%)	New food bank user during pandemic (%)	Long term food bank user (used before and during pandemic) (%)	Total (%)
White	93.3	2.4	4.3	100
Asian	94.6	1.3	4.1	100
Black	85.0	3.9	11.1	100
Mixed/Other	90.3	3.0	6.7	100

Overall	92.8	2.4	4.8	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. The 'Mixed' and 'Other' ethnic groups are combined in a single category for statistical disclosure control reasons. N = 6,914

Overcrowding

Moving on to whether the households were overcrowded by ethnicity, Table 20 shows a general pattern that compared to the White households, ethnicity minority households tended to be overcrowded. This is especially true for Black and Asian families.

Table 20 Percentage of overcrowded households by ethnicity

Ethnicity	Households not overcrowded (%)	Households overcrowded (%)	Total (%)
White	91.0	9.0	100
Mixed	80.4	19.6	100
Asian	68.7	31.3	100
Black	64.6	35.4	100
Other	70.7	29.3	100
Overall	86.6	13.4	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. N= 6,652

Pupils' perception of having fallen behind classmates

In terms of the differences in pupils' perceptions of educational progress, pupils who belong to "Other" category, and Asian and Black pupils were more likely to feel having fallen behind classmates as a result of the COVID-19 pandemic, compared to White and mixed pupils (Table 21).

Table 21 Percentage of young people who perceived having fallen behind classmates as a result of the COVID-19 pandemic by ethnicity

Ethnicity	Pupils not perceived having fallen behind classmates (%)	Pupils perceived having fallen behind classmates (%)	Total (%)
White	66.6	33.4	100
Mixed	64.4	35.6	100
Asian	61.0	39.0	100
Black	61.2	38.8	100
Other	57.0	43.0	100
Overall	65.3	34.7	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. N=9,832

Pupils not planning to apply to university due to cost

Finally, we look at pupils' plans to apply to university by ethnicity, with a specific focus on those who did not plan to apply to university due to financial reasons. While White pupils were the least likely to plan to apply to university, they were more likely not plan to do so due to cost reasons. Meanwhile, Asian and Black pupils were the least likely to report that they did not plan to go to university due to financial reasons.

Table 22 Percentage of young people who did not plan to apply to university due to cost by ethnicity

Ethnicity	Plan to apply to university (%)	Not plan to apply to university due	Not plan to apply to university due to cost	Total (%)

		to non-financial reasons (%)	(%)	
White	66.4	26.1	7.5	100
Asian	88.5	9.9	1.5	100
Black	86.8	11.0	2.2	100
Mixed/Other	81.8	13.8	4.4	100
Overall	71.1	22.6	6.3	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. The 'Mixed' and 'Other' ethnic groups are combined in a single category for statistical disclosure control reasons. N = 9,501

Our descriptive analysis so far indicates inequalities in financial impacts experienced by households during the COVID-19 pandemic. These financial impacts, which are shown to be stratified by pupil poverty and ethnicity, might have a further impact on pupils' educational attainment. We therefore use regression models to further explore the potential financial impacts related experiences on young people's educational attainment, controlling for pupils' background characteristics and prior attainment. This is what the second part of this note focuses on.

The potential financial impacts during the COVID-19 pandemic on pupils' educational attainment

The relationship between food poverty in households during the COVID-19 pandemic and pupils' GCSE attainment

First, we explore the link between food poverty in households and pupils' teacher assessed KS4 performance. As shown in Table 23, comparing pupils with similar characteristics, same financial situation at home (which might be a proxy for food poverty), and same baseline educational attainment, those who lived in a household with adults not having enough to eat had lower GCSE scores (about 2.4 scores lower).

Table 23 Associations between food poverty in households during the COVID-19 pandemic and pupils' teacher assessed GCSE attainment

	Model 0	Model 1	Model 2	Model 3	Model 4	Model 5
Only adult(s)	-12.21	-12.04	-11.81	-5.67	-3.48	-2.41

in household have gone hunger (Reference category: Household not gone hunger)	(0.00)***	(0.00)***	(0.00)***	(0.00)***	(0.00)**	(0.01)**
Household have gone hunger (including 1+ children) (Reference category: Household not gone hunger)	-11.21 (0.00)***	-8.39 (0.00)***	-9.81 (0.00)***	-4.16 (0.02)*	-2.28 (0.22)	-1.15 (0.42)
Female (Reference category: Male)			6.74 (0.00)***	6.75 (0.00)***	6.61 (0.00)***	4.73 (0.00)***
Mixed (Reference category: White)			1.48 (0.28)	1.42 (0.38)	1.91 (0.21)	-0.20 (0.89)

Asian (Reference category: White)	4.32 (0.00)***	6.84 (0.00)***	6.90 (0.00)***	4.57 (0.00)***
Black (Reference category: White)	-2.68 (0.11)	-0.03 (0.99)	0.18 (0.91)	1.36 (0.31)
Other (Reference category: White)	1.21 (0.66)	4.48 (0.11)	4.06 (0.14)	6.07 (0.00)**
North East (Reference category: South East)	-0.32 (0.85)	3.01 (0.08)	2.99 (0.08)	1.06 (0.41)
North West (Reference category: South East)	-1.59 (0.27)	1.17 (0.38)	0.95 (0.48)	0.65 (0.55)
Yorkshire and The Humber (Reference category:	-1.51 (0.28)	1.05 (0.44)	1.01 (0.45)	1.72 (0.10)

South East)

East Midland (Reference category: South East)	-1.23 (0.39)	0.49 (0.72)	0.40 (0.77)	1.71 (0.10)
West Midland (Reference category: South East)	-1.75 (0.17)	-0.33 (0.80)	-0.12 (0.92)	0.93 (0.39)
East of England (Reference category: South East)	-0.40 (0.76)	1.02 (0.43)	1.07 (0.40)	0.99 (0.34)
London (Reference category: South East)	3.63 (0.03)*	4.64 (0.02)*	4.59 (0.02)*	1.85 (0.35)
South West (Reference category: South East)	0.20 (0.90)	1.72 (0.23)	1.55 (0.28)	1.71 (0.09)
Degree holder (Reference category: Non-degree		5.00 (0.00)***	4.77 (0.00)***	1.39 (0.05)*

holder)

Higher managerial/professional occupation (Reference category: Routine, manual & never worked)	7.44 (0.00)***	6.89 (0.00)***	2.56 (0.00)***
Intermediate occupation (Reference category: Routine, manual & never worked)	4.00 (0.00)***	3.98 (0.00)***	2.01 (0.00)**
FSM eligible (Reference category: Non-FSM eligible)	-8.63 (0.00)***	-8.12 (0.00)***	-3.80 (0.00)***
Getting by (Reference category: Comfortable)		-4.21 (0.00)***	-3.15 (0.00)**
Difficult		-4.17	-3.07

(Reference category: Comfortable)					(0.00)**	(0.00)**
Worse (Reference category: Same/better)					-0.54 (0.52)	0.38 (0.57)
Key Stage 2 attainment: reading						0.50 (0.00)***
Key Stage 2 attainment: maths						0.94 (0.00)***
Key Stage 2 attainment: GPS						0.44 (0.00)***
N	6474	4333	4333	4333	4333	4333
R^2	0.044	0.047	0.091	0.204	0.214	0.571
Residual DoF	3257	2431	2431	2431	2431	2431

Reporting standardised regression coefficients
p-values in parentheses
DoF = Degrees of Freedom
GPS = Grammar, Punctuation and Spelling
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The relationship between food bank usage and pupils' GCSE attainment

We then move on to focus on food bank usage, which received great attention and has been widely discussed during the COVID-19 pandemic. As shown in Table 24, although pupils living in the households who were new food bank users since the start of the COVID-19 pandemic are associated with achieving lower GCSE scores, after further controlling for background characteristics, prior attainment and household financial situation, this link becomes negligible.

Meanwhile, living in households who were long-term food bank users (i.e., used food bank before and during the COVID-19 pandemic) is consistently associated with lower GCSE scores. Being long-term food back users on its own is linked with about 18 scores lower in KS4 performance. After taking background characteristics, financial situation at home during the COVID-19 pandemic, and prior attainment into account, this association is still approximately -4 GCSE scores. This suggests that having to use food bank in the long term is an important risk factor for pupils' educational attainment.

Table 24 Associations between food bank usage and pupils' teacher assessed GCSE attainment

	Model 0	Model 1	Model 2	Model 3	Model 4	Model 5
Used food bank in pandemic (Reference category: Not used a food bank during the pandemic)	-12.42 (0.00)***	-10.45 (0.00)***	-10.24 (0.00)***	-2.01 (0.30)	-0.32 (0.87)	-0.62 (0.69)
Used food bank before and during pandemic (Reference category: Not	-18.95 (0.00)***	-17.77 (0.00)***	-17.34 (0.00)***	-8.64 (0.00)***	-7.24 (0.00)***	-4.12 (0.00)***

used a food
bank during
the pandemic)

Female (Reference category: Male)	6.51 (0.00)***	6.65 (0.00)***	6.52 (0.00)***	4.68 (0.00)***
Mixed (Reference category: White)	1.41 (0.29)	1.37 (0.39)	1.87 (0.21)	-0.27 (0.86)
Asian (Reference category: White)	4.63 (0.00)***	7.08 (0.00)***	7.07 (0.00)***	4.59 (0.00)***
Black (Reference category: White)	-2.33 (0.16)	-0.01 (0.99)	0.22 (0.89)	1.46 (0.27)
Other (Reference category: White)	2.55 (0.33)	5.15 (0.07)	4.56 (0.10)	6.45 (0.00)***
North East (Reference category:	-1.11 (0.53)	2.62 (0.13)	2.71 (0.11)	0.80 (0.52)

South East)

North West (Reference category: South East)	-1.47 (0.31)	1.21 (0.36)	0.87 (0.51)	0.57 (0.60)
Yorkshire and The Humber (Reference category: South East)	-1.71 (0.21)	0.88 (0.51)	0.80 (0.54)	1.54 (0.13)
East Midland (Reference category: South East)	-1.28 (0.38)	0.42 (0.76)	0.28 (0.84)	1.57 (0.13)
West Midland (Reference category: South East)	-1.73 (0.18)	-0.29 (0.82)	-0.04 (0.97)	0.88 (0.41)
East of England (Reference category: South East)	-0.20 (0.88)	1.08 (0.41)	1.04 (0.41)	0.94 (0.36)
London (Reference category:	3.23 (0.05)	4.38 (0.03)*	4.35 (0.03)*	1.66 (0.40)

South East)

South West (Reference category: South East)	0.19 (0.90)	1.63 (0.25)	1.40 (0.32)	1.55 (0.12)
Degree holder (Reference category: Non-degree holder)		5.08 (0.00)***	4.79 (0.00)***	1.39 (0.05)*
Higher managerial/professional occupation (Reference category: Routine, manual & never worked)		7.34 (0.00)***	6.61 (0.00)***	2.37 (0.00)***
Intermediate occupation (Reference category: Routine, manual & never worked)		3.57 (0.00)***	3.63 (0.00)***	1.73 (0.01)*
FSM eligible		-8.68	-7.74	-3.57

(Reference category: Non-FSM eligible)	(0.00)***	(0.00)***	(0.00)***
Getting by (Reference category: Comfortable)		-4.53 (0.00)***	-3.41 (0.00)**
Difficult (Reference category: Comfortable)		-5.01 (0.00)***	-3.76 (0.00)***
Worse (Reference category: Same/better)		-0.77 (0.35)	0.24 (0.72)
Key Stage 2 attainment: reading			0.51 (0.00)***
Key Stage 2 attainment: maths			0.94 (0.00)***
Key Stage 2 attainment:			0.42 (0.00)***

GPS

N	6396	4314	4314	4314	4314	4314
R^2	0.048	0.045	0.087	0.201	0.215	0.572
Residual DoF	3220	2425	2425	2425	2425	2425

Reporting standardised regression coefficients

p-values in parentheses

DoF = Degrees of Freedom

GPS = Grammar, Punctuation and Spelling

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

In sum, when looking at the association between food poverty and food bank usage in households during the pandemic and pupils' GCSE educational attainment, the experience of having adults at home suffered from food poverty, and having families who were long-term food bank users are negatively associated with pupils' GCSE attainment, other things equal.

Conclusion

This note has documented inequalities in the financial impacts during the COVID-19 pandemic, depending on young people's FSM eligibility and ethnicity. This highlights the importance and need for consideration of such inequality by pupil poverty and ethnicity in policy and practice in response to the financial impacts suffered from some households since the start of COVID-19 pandemic.

Our findings also reveal the potential negative effects of some financial impacts experienced by young people during the COVID-19 pandemic on their educational outcomes. After controlling for young people's background characteristics, region, their prior KS2 attainment, and some correlated financial impact experiences, the experience of living in households who found it difficult to manage financially during the pandemic, food poverty suffered from adults in households, and the experience of using food bank both before and during the COVID-19 pandemic are pronounced risky factors for pupils' teacher assessed educational attainment. This highlights the importance of tackling long-term poverty, including food poverty, in policy and practice responses to the pandemic.

Appendices

Table A1 Percentage of young people who took up one-to-one or small group catch-up tutoring by FSM eligibility in Year 11 in the last 6 years

FSM eligibility	Pupils did not took up one-to-one or small group catch-up tutoring (%)	Pupils took up one-to-one or small group catch-up tutoring (%)	Total
Not eligible for FSM in the last 6 years	74.2	25.8	100
Eligible for FSM in the last 6 years	65.4	34.6	100
Overall	72.1	27.9	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. N = 8,038

Table A2 Percentage of young people who received private tutoring either before or during the COVID-19 pandemic by FSM eligibility in Year 11 in the last 6 years

FSM eligibility	Pupils did not receive private tutoring either before or during the COVID-19 pandemic (%)	Pupils received private tutoring either before or during the COVID-19 pandemic (%)	Total

Not eligible for FSM in the last 6 years	96.3	3.7	100
Eligible for FSM in the last 6 years	98.6	1.4	100
Overall	96.9	3.1	100

Notes. Reporting row percentages. Analysis is weighted to account for sampling design and non-response. N = 6,807

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