Department for Education

Schools block national funding formula: technical note

October 2019

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Chapter 1: Introduction and overview

Introduction

1.1. This document explains how we have calculated the local authority (LA) level schools block (SB) 2020-21 actual primary and secondary units of funding. It also covers the calculation of the provisional LA-level and notional school-level 2020-21 total funding under the national funding formula (NFF).

a. Chapter 2 sets out how we have defined the baseline pupil count and funding used to apply the funding floor and understand the impact of the NFF. LAs can see these calculations in NFF Report D2 which we have made available for them on the COLLECT system.

b. Chapter 3 sets out each component of the schools NFF that is calculated at a school level, including the minimum per pupil funding and the funding floor. LAs can see these calculations in NFF COLLECT reports E2 and F2.

c. Chapter 4 sets out the calculation of the LA-level primary and secondary units of funding, bringing together school-level output from the previous chapters and LA-level calculations of the premises and growth factors. LAs can see these calculations in NFF COLLECT reports H and I.

d. Chapter 5 sets out the differences between the data used to calculate the LA-level allocations and the data used to illustrate the impact of the NFF at a school level. LAs and schools can see the calculation behind the school level illustrations in COLLECT report C (individual school summary); schools can see their own calculation, while LAs can see the calculations for all the schools in their area.

1.2. Under the NFF the SB will allocate funding for pupils in Reception to Year 11 in state-funded mainstream schools and academies in England. Special schools, alternative provision, provision in nursery schools and classes, sixth form provision and post-16 only institutions are not funded under this formula.

1.3. The City of London and Isles of Scilly are also excluded as they will receive a separate education grant covering funding for their schools. Our NFF calculations also exclude the two city technology colleges which are funded outside of the dedicated schools grant (DSG).

1.4. We have published two outputs:

a. LA-level SB 2020-21 primary and secondary units of funding, which will be used to derive the final SB funding for LAs in December 2019, and provisional NFF SB allocations to LAs for 2020-21.

b. Notional NFF allocations to schools for 2020-21.

Differences between the 2019-20 NFF and the 2020-21 NFF

1.5. The main formula in 2020-21 is similar to the NFF arrangements in 2019-20. However, we have introduced some changes[1]

a. The baseline for floor funding is the 2019-20 notional NFF allocations, instead of the actual local funding allocations from 2017-18, and the funding floor is calculated at 1.84% above baseline.

b. Unit values (Chapter 3) have typically been increased by around 4%.

c. There is no longer a gains cap.

d. The NFF calculations for 2020-21 are based on school and pupil characteristics data from the 2019-20 authority proforma tool (APT) data, rather than 2018-19 APT data which drove the 2019-20 calculations.

e. We have allocated mobility funding using a new formulaic approach (see Chapter 3 for more information).

f. We no longer calculate 'if-full' baselines (i.e. the baseline level of funding a school would have received if it had been full) for new and growing schools, or use an 'if-full' pupil count at any stage in the calculation. We are now calculating baselines for new and growing schools based on the actual pupil count.

g. We now use a weighted approach to calculate the minimum per pupil levels for all schools (see Chapter 3 for more information).

Data and modelling approach

1.6. To calculate the LA-level SB 2020-21 units of funding and provisional impacts at LA level of the NFF, we have used pupil and school characteristics data from the 2019-20 APT, which is based on October 2018 school census data, as adjusted by LAs.

1.7. To illustrate the impact of the formula on individual schools for 2020-21, we have used data from the 2019-20 APT for LA maintained schools, and from their 2019/20 general annual grant (GAG) statement for academies and free schools.

1.8. These two data sources do not reflect any changes after March 2019. We have taken this approach for the notional calculations for individual schools because we want schools and LAs to be able to compare the impact of the formula directly to the funding they receive now.

[1] (set out in the policy document 2020-21 NFF)

1.9. Schools' actual allocations for 2020-21 are based on more up-to-date pupil data as well as being the result of LAs' local funding formula arrangements, so these notional allocations should not be taken as firm and actual allocations.

1.10. As we have used data from the 2019-20 APT for maintained schools and from the 2019/20 GAG for academies and free schools to illustrate the school-level impact of the NFF, the total of the notional impact across all schools (from the Impact of the schools NFF table) will not match the total of the provisional LA allocations (from the NFF summary table).

1.11. The NFF calculation is split into three components, which for the purposes of this note we will refer to as:

a. Core NFF funding: this makes up the vast majority of the SB. The LA-level primary and secondary NFF units of funding represent core NFF funding. Core NFF funding covers funding through the:

   i. Pupil-led factors: basic per-pupil, deprivation, low prior attainment, English as an additional language, mobility, minimum per pupil funding and funding floor.

   ii. School-led factors: lump sum, sparsity.

   iii. The area cost adjustment: this is a multiplier that applies to both pupil-led and school-led factors and enables the core NFF funding amounts to take account of geographical variation in labour market costs (this is explained further in Chapter 3).

b. Premises funding: premises funding covers funding through the PFI, split sites, rates and exceptional circumstances factors.

c. Growth funding: this is allocated at LA level to support them to manage an increase in pupil numbers in 2020-21 before the lagged funding system has caught up. It is calculated using a mix of school-level and LA-level data.

Chapter 2: Establishing baseline funding for LA allocations

2.1. The NFF calculates notional allocations at school level and then aggregates these to produce LA-level allocations. The calculation of LA-level allocations uses pupil and funding data from the 2019-20 APT for both schools and academies so that the funding is all on a consistent basis. This means the notional 2020-21 allocations for academies which contribute towards the 2020-21 LA-level allocations are based on their APT allocations, not their actual GAG allocation.

2.2. This chapter sets out the baseline funding used to calculate 2020-21 SB allocations to LAs under the NFF. Chapter 5 sets out how we have separately calculated notional allocations at school level to illustrate the impact of the formula, which uses pupil and funding data from 2019/20 GAG statements for academies and free schools, rather than data from the APT.

Core NFF funding baseline

2.3. In order to calculate the NFF funding floor baseline, we compare a school's notional 2019-20 NFF funding with their notional funding under the NFF in 2020-21.

2.4. Where schools do not have a 2019-20 NFF baseline (for instance, schools which have opened recently), we have created a theoretical baseline based on the provisional 2019-20 NFF allocations in the relevant LA. This is to ensure that new schools are not disadvantaged compared to other schools in their LA area. We have done this separately for each LA for three categories of school: (a) new schools with no predecessor, (b) schools that have amalgamated and (c) schools that have split. Details of the calculation of theoretical baselines can be found in Annex B.

Baseline pupil count

2.5. For each school we use the total number on roll (NOR) from the 2019-20 NFF.

Baseline core funding

2.6. For each school, the baseline core funding is the total notional 2019-20 NFF allocation, including mobility, but excluding premises and growth.

Baseline pupil-led funding per pupil

2.7. For each school we calculate a per-pupil baseline for its pupil-led funding. This is used as the baseline to calculate the 2020-21 funding floor. To derive this, we subtract the 2020-21 NFF school-led funding (with area cost adjustment) from the baseline core funding, multiply the result by the proportion of 2019-20 for which the

school will be open, divide by the proportion of the year for which the school was funded in the 2019-20 NFF and then divide by the baseline pupil count.

Premises factors baselines

2.8. The premises baselines for the LA-level provisional allocations are the total funding allocated to each LA in the 2019-20 NFF. The individual funding factors that make up the total premises factor are:

a. Private finance initiative (PFI);

b. Split sites;

c. Rates;

d. Exceptional circumstances.

Chapter 3: Core NFF funding calculation for LA allocations

3.1. In the chapter, we set out each component of the 2020-21 schools NFF that is calculated at a school level. For calculating LA allocations, we use data from the 2019-20 APT for both maintained schools and academies, and this chapter sets out the calculation of core NFF funding for LA allocations.

3.2. However, for calculating the notional impact on individual schools, we use 2019-20 APT data for maintained schools and 2019/20 GAG data for academies and free schools. That calculation will be described later in Chapter 5.

3.3. Core NFF funding covers funding through the NFF that is calculated at a school level. Through the core NFF funding calculation we derive a NFF primary and secondary per pupil unit of funding for 2020-21, for each LA.

3.4. The NFF uses pupil numbers as adjusted by LAs in the APT. Where the LA has applied reception uplift, the NFF removes it, since this is not a component of the NFF.

3.5. APT data is based on October 2018 school census data. Any adjustment that an LA makes to census data in the APT, overrides the relevant school census data item and is used for the LA-level NFF.

3.6. Core NFF funding covers funding through the basic per pupil, deprivation, low prior attainment (LPA), English as an additional language (EAL), mobility, lump sum, and sparsity factors. The area cost adjustment (ACA) is also applied to uplift funding in line with local labour market costs. The minimum per pupil funding and the funding floor are applied to ensure that all schools attract at least the minimum level of per pupil funding through the formula and that all schools attract at least a 1.84% increase compared to their 2019-20 baseline pupil-led funding per pupil. Notional funding for schools which are open for part of the financial year to 31 March 2020 is scaled down pro rata.

Basic per-pupil funding

Figure 1: Basic per pupil funding factors

Factor	Unit value	Eligibility
Primary basic per pupil funding	£2,857	Each pupil on the school roll in year groups from reception to year 6 inclusive.

Factor	Unit value	Eligibility
		The primary APT adjusted pupil count is based on data from the 2019-20 APT and excludes reception uplift.
Key stage 3 (KS3) basic per pupil funding	£4,018	Each pupil on the school roll in year groups from year 7 to year 9 inclusive. The KS3 APT adjusted pupil count is based on data from the 2019-20 APT.
Key stage 4 (KS4) basic per pupil funding	£4,561	Each pupil on the school roll in year 10 and year 11. The KS4 APT adjusted pupil count is based on data from the 2019-20 APT.

Figure 1: this table shows the basic per pupil funding factors, their unit value and the eligibility criteria for each factor

3.7. The total NFF funding through the basic per pupil factor is equal to:

a. Primary basic per pupil unit value multiplied by the primary APT adjusted pupil count, plus

b. KS3 basic per pupil unit value multiplied by the KS3 APT adjusted pupil count, plus

c. KS4 basic per pupil unit value multiplied by the KS4 APT adjusted pupil count.

Additional needs funding

3.8. The additional needs factors allocate funding to schools on the basis of the number of pupils who have particular characteristics. For each factor, schools receive a unit of funding per eligible pupil. The number of eligible pupils is worked out by calculating the proportion of pupils in the school who are eligible for each factor, and then applying this proportion to the APT adjusted pupil count. This step is necessary to ensure the changes to the pupil numbers due to any adjustments made by LAs in the APT feed through into the number of eligible pupils for the various additional needs factors.

3.9. The proportion of pupils eligible for each factor only takes account of pupils for whom data is available. We assume that pupils with missing characteristics data are eligible for the factor at the same rate as the other pupils for whom we do have data. This is

the same methodology as LAs currently use to allocate funding to schools. For example:

a. School A has 400 pupils but only 380 have valid data returns for free school meal (FSM) eligibility.

b. Of the 380 pupils with valid FSM data, 95 are claiming FSM, and 285 do not claim FSM. Therefore the proportion of pupils at School A that are eligible for funding through the FSM factor is 25% (95 divided by 380).

c. The total number of eligible pupils is calculated by multiplying the total pupil count, 400, by the school's proportion of FSM-eligible pupils, 25%. Therefore School A receives funding through the FSM factor for 400 x 25% = 100 eligible pupils.

3.10. The additional needs factors are additive: pupils attract funding for all the factors for which they are eligible. So, for example, a pupil currently eligible for FSM attracts the FSM unit value amount and the FSM Ever 6 ("FSM6") unit value.

Socio-economic deprivation – eligibility for free school meals (FSM)

Figure 2: FSM funding factors

Factor	Unit value	Eligibility
Primary FSM	£450	Schools receive funding for all FSM-eligible primary pupils through this factor. We calculate the total number of eligible pupils by taking the proportion of FSM-eligible primary pupils (in Years Reception to 6) from the 2019-20 APT and multiplying by the primary APT adjusted pupil count.
Secondary FSM	£450	Schools receive funding for all FSM-eligible secondary pupils through this factor. We calculate the total number of eligible pupils by taking the proportion of FSM-eligible secondary pupils (in Years 7 to 11) from the 2019-20 APT and multiplying by the secondary APT adjusted pupil count (KS3 APT adjusted pupil count plus KS4 APT adjusted pupil count).

Factor	Unit value	Eligibility
Primary FSM6	£560	Schools receive funding for all primary pupils who have been recorded as eligible for FSM at any time in the last six years (FSM6) through this factor (this includes all primary pupils who are currently eligible for FSM). We calculate the total number of eligible pupils by taking the proportion of FSM6-eligible primary pupils from the 2019-20 APT and multiplying by the primary APT adjusted pupil count.
Secondary FSM6	£815	Schools receive funding for all secondary pupils who have been recorded as eligible for FSM at any time in the last six years through this factor. We calculate the total number of eligible pupils by taking the proportion of FSM6-eligible secondary pupils from the 2019-20 APT and multiplying by the secondary APT adjusted pupil count.

Figure 2: This table shows the FSM funding factors, their unit value and the eligibility criteria for each factor.

Socio-economic deprivation – Area-level deprivation data: Income Deprivation Affecting Children Index (IDACI)[2]

3.11. The IDACI element of the deprivation factor is based on the IDACI dataset for 2015, which is published by the Ministry for Housing, Communities and Local Government (MHCLG). IDACI is a relative measure of socio-economic deprivation: an IDACI 'score' is calculated for a lower super output area (LSOA, an area with typically about 1,500 residents) based on the characteristics of households in that area. The IDACI score of a given area does not mean that every child living in that area has particular deprivation characteristics: it is a measure of the likelihood that a child is in a household experiencing relative socio-economic deprivation.

[2] Ministry of Housing, Communities and Local Government, 'English indices of deprivation 2015', September 2015

3.12. The Department for Education applies a 'banding' methodology to enable the IDACI data to be used for school funding purposes. IDACI scores are grouped into seven bands, with each band representing an increase in the expected level of deprivation. We match IDACI data to pupils' home postcode data recorded in the school census in order to find the IDACI score relevant to each pupil in a school. The amount of IDACI funding received by a school depends on the IDACI score of each pupil.

3.13. We have matched the 2015 IDACI to pupil data from the October 2018 school census, on the basis of the LSOA of each pupil's home address. The NFF IDACI bands (also to be used by LAs that choose to allocate funding through the IDACI factor in their 2020-21 local formula) are set out in Figure 3.

3.14. MHCLG have recently published new IDACI data for 2019. This data is not available in time to be used in the 2020-21 NFF, and we are continuing to use IDACI data for 2015 as last year. We will be considering how to bring the 2019 IDACI data into use for the 2021-22 NFF.

Figure 3: NFF IDACI bands – using pupil-level data from the October 2018 school census with APT adjustments

NFF IDACI bands		
IDACI score	**Band**	**% pupils in the band nationally**
Between 0.5 and 1	A	3%
Between 0.4 and 0.5	B	8%
Between 0.35 and 0.4	C	7%
Between 0.3 and 0.35	D	8%
Between 0.25 and 0.3	E	9%
Between 0.2 and 0.25	F	10%
Less than 0.2	G	55%

Figure 4: IDACI funding factors

Factor	Unit value	Eligibility
Primary IDACI band A	£600	We calculate the total number of eligible pupils for funding through each IDACI band by taking the proportion of IDACI band "x" eligible primary pupils for the relevant band from the 2019-20 APT and multiplying it by the primary APT adjusted pupil count.
Primary IDACI band B	£435	
Primary IDACI band C	£405	
Primary IDACI band D	£375	
Primary IDACI band E	£250	
Primary IDACI band F	£210	
Secondary IDACI band A	£840	We calculate the total number of eligible pupils for funding through each IDACI band by taking the proportion of IDACI band "x" eligible secondary pupils for the relevant band from the 2019-20 APT and multiplying it by the secondary APT adjusted pupil count.
Secondary IDACI band B	£625	
Secondary IDACI band C	£580	
Secondary IDACI band D	£535	
Secondary IDACI band E	£405	
Secondary IDACI band F	£300	

Figure 4: This table shows the IDACI funding factors, their unit value and the eligibility criteria for each factor. We do not allocate funding through IDACI band G.

Low prior attainment factor (LPA)

3.15. We use early years foundation stage profile (EYFSP) and key stage 2 (KS2) attainment data to work out how many pupils are eligible for funding through the LPA factor. Similarly to the other factors, we use data for LPA as recorded in the 2019-20 APT.

3.16. In the APT, the LPA pupil numbers for year groups 7 to 9 inclusive are weighted so that those who have sat the more challenging key stage 2 tests (introduced in academic year 2015 to 2016) do not have a disproportionate effect on the LPA factor. The weightings are

- For pupils in year 7 in October 2018: 0.63586
- For pupils in year 8 in October 2018: 0.58045
- For pupils in year 9 in October 2018: 0.48019
- For pupils in years 10 and 11 in October 2018: 1

Figure 5: LPA funding factors

Factor	Unit value	Eligibility
Primary LPA	£1,065	Schools receive funding through this factor for all primary pupils who did not reach the expected level of development at early years foundation stage (EYFS). We do not have EYFS data for pupils in Reception because they take the test at the end of the Reception year. We calculate the total number of eligible pupils by working out the proportion of LPA-eligible pupils in years 1 to 6 and multiplying this proportion by the primary APT adjusted pupil count, which includes pupils in Reception.
Secondary LPA	£1,610	Schools receive funding for all secondary pupils who did not achieve the expected level at KS2 one or more of reading or writing or mathematics through this factor. We calculate the total number of eligible pupils by: Taking the proportion of LPA-eligible pupils in each secondary year group from the 2019-20 APT, Applying to each year group the relevant weighting set out in Paragraph 3.16 Multiplying by the APT adjusted pupil count for the relevant year group And summing the results for each year group.

Figure 5: This table shows the LPA funding factors, their unit value and the eligibility criteria for each factor.

English as an additional language factor (EAL)

3.17. The pupils eligible to attract funding through the NFF EAL factor are those recorded on the census as having entered state education in England during the last three years, whose first language is not English. This measure is called “EAL3” in the current LA local funding arrangements. References to “EAL-eligible” pupils in this section refer to pupils eligible to attract funding through the NFF EAL factor as described above.

Figure 6: EAL funding factors

Factor	Unit value	Eligibility
Primary EAL	£535	Schools receive funding for all EAL-eligible primary pupils through this factor. We calculate the total number of eligible pupils by taking the proportion of EAL-eligible primary pupils from the 2019-20 APT and multiplying by the primary APT adjusted pupil count.
Secondary EAL	£1,440	Schools receive funding for all EAL-eligible secondary pupils through this factor. We calculate the total number of eligible pupils by taking the proportion of EAL-eligible secondary pupils from the 2019-20 APT and multiplying by the secondary APT adjusted pupil count.

Figure 6: This table shows the EAL funding factors, their unit value and the eligibility criteria for each factor.

Mobility Factor

3.18. The pupils eligible for funding through the NFF mobility factor are pupils whose school census record at their current school (or one of its predecessors) in the last three years indicates an entry date which is not typical[3]. For year groups 1 to 11, ‘typical’ means that the first census on which a pupil is recorded as attending the school (or its predecessors) is the October census. So, ‘not typical’ means that the

[3] The school census record of an individual pupil is established by tracing the pupil’s unique reference number back through earlier termly censuses.

first census a pupil is recorded as attending the school is a January or May census. For the reception year, 'typical' means the first census is October or January.

3.19. In Figure 7, 5 pupils attending an all-through school are illustrated. Pupil 1's first appearance is in an October census, so that pupil is not classified as mobile for the purposes of the NFF mobility factor. Pupil 2, who was currently in year 11 in 2018/19, had their first appearance in the school in a January census, so they are classified as mobile. Pupil 3's first census is also January but as the pupil was in year R at the time, they are not mobile. Pupil 4's first census is May and so is mobile. Pupil 5 has been at the school for at least 3 years so is not eligible for mobility funding.

Figure 7: Mobility example

Census	Pupil 1	Pupil 2	Pupil 3	Pupil 4	Pupil 5
Oct-15					Y5
Jan-16					Y5
May-16				Y1	Y5
Oct-16				Y2	Y6
Jan-17			YR	Y2	Y6
May-17			YR	Y2	Y6
Oct-17			Y1	Y3	Y7
Jan-18		Y10	Y1	Y3	Y7
May-18		Y10	Y1	Y3	Y7
Oct-18	Y7	Y11	Y2	Y4	Y8

Figure 7: This table shows the census appearances for 5 pupils at one school (or its predecessors).

3.20. This method for calculating eligibility for the mobility factor is new for the 2020-21 NFF (the dataset issued with the 2019-20 APT used a less reliable mobility measure, based on the entry date field in the school census). The new factor has been calculated using the same October 2018 pupils as the SBDS and data will be supplied to LAs and schools through the COLLECT tables. The 2020-21 SBDS mobility factor will use this new definition of eligibility.

Figure 8: Mobility funding factors

Factor	Unit value	Eligibility
Primary Mobility	£875	Schools receive funding for all mobility-eligible primary pupils through this factor, above a threshold set at 6% of the primary NOR.

		We calculate the total number of eligible pupils by taking the proportion of mobility-eligible primary pupils from the new mobility dataset (after applying the threshold) and multiplying by the primary APT adjusted pupil count.
Secondary Mobility	£1,250	Schools receive funding for all mobility-eligible secondary pupils through this factor, above a threshold set at 6% of the secondary NOR. We calculate the total number of eligible pupils by taking the proportion of mobility-eligible secondary pupils from the new mobility dataset (after applying the threshold) and multiplying by the secondary APT adjusted pupil count.

Figure 8: This table shows the mobility funding factors, their unit value and the eligibility criteria for each factor.

Lump sum

3.21. Each school receives a lump sum, irrespective of its size or phase.

Figure 9: Lump sum funding factor

Factor	Unit value	Eligibility
Lump sum	£114,400	All schools receive this lump sum amount – we do not differentiate funding by phase.

Figure 9: This table shows the lump sum funding factor, the unit value and the eligibility criteria for the factor.

Sparsity

3.22. The sparsity factor targets extra funding to schools that are both small and remote.

Figure 10: Sparsity funding factor

Factor	Unit value
Sparsity for primary schools	£0 - £26,000

Sparsity for secondary, middle and all-through schools	£0 - £67,600

Figure 10: This table shows the sparsity funding factors and the unit values.

3.23. To decide if a school is eligible for sparsity funding we use the same criteria as currently recommended by the department for use in LA's local funding formulae, and sparsity distance and year group data from the 2019-20 APT[4]. A school is eligible for sparsity funding if:

a. For all the pupils for whom it is the nearest compatible[5] school, the average straight-line distance from the pupils' homes to the second nearest compatible school (the sparsity distance) is more than three miles (for secondary schools) or two miles (for all other schools), and

b. The average year group size (calculated as the APT adjusted pupil count divided by number of year groups present at the school) is below the appropriate year group threshold. This threshold is 21.4 for primary schools, 69.2 for middle schools, 120 for secondary schools and 62.5 for all-through schools.

3.24. The unit values in Figure 10 above give the maximum sparsity sum that a school can receive. We taper this sparsity sum using the school's sparsity weighting (see below), so that if a school's average year group size is more than half of the threshold, it receives a weighted proportion of the maximum value.

Sparsity weighting

3.25. We calculate a sparsity weighting for each school that is eligible for sparsity funding. This sparsity weighting sets the proportion of the sparsity sum for which each sparse school is eligible.

3.26. The sparsity weighting for schools with an average year group size of less than half the year group threshold is 100%. These sparse schools receive the full sparsity sum.

3.27. The sparsity weighting for sparse schools with an average year group size of above half the year group threshold is calculated as follows:

[4] In the rare case that there is no year group data for a school on the 2019-20 APT, we assume the school is not eligible for sparsity funding.

[5] For the purposes of this factor, a compatible school means one of the relevant phase which a pupil could attend. Selective grammar schools are not considered when identifying the second nearest compatible school, but faith schools are included.

$$S = \left(1 - \frac{A - {}^{T}/_{2}}{{}^{T}/_{2}}\right), \quad where \quad {}^{T}/_{2} \leq A < T$$

Where

S is the sparsity weighting

A is the average year group size of the school

T is the year group threshold

3.28. This means that a sparse school with an average year group size that is three quarters of the threshold attracts sparsity funding of half the maximum. The sparsity weighting for primary, middle, secondary and all-through schools is set out in Figure 11 below.

Figure 11: Sparsity weighting

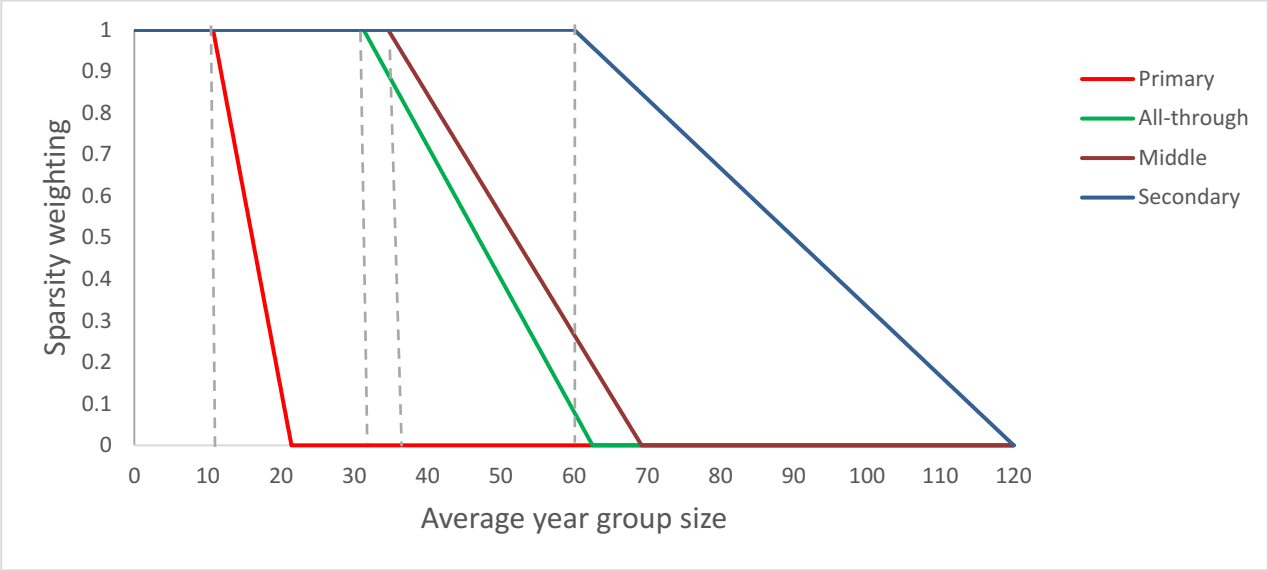

Figure 11: sparsity weighting for different phases of school, as a function of average year group size

Area cost adjustment (ACA)

3.29. The NFF includes an ACA to reflect geographical variation in labour market costs. We use the 'hybrid' methodology for the ACA, which takes into account variation in both the general labour market (GLM) and in teacher pay scales.

3.30. The SB NFF ACA is a combination of:

a. The teacher pay cost adjustment, an element to reflect the differences in the basic pay ranges between the four regional pay bands for teachers and

b. The GLM cost adjustment, an element to reflect geographical variation in wage costs for non-teaching staff.

3.31. The SB NFF ACA is calculated for each district by:

a. Weighting the relevant teachers specific cost adjustment in line with the national proportion of spend on teaching staff in mainstream schools (52.8%).

b. Weighting the relevant GLM labour cost adjustment in line with the national proportion of spend on non-teaching staff in mainstream schools (27.6%).

3.32. The result gives the SB NFF ACA for each school located in the district. Further information on the derivation of the ACA can be found in Annex A.

NFF pupil-led unit of funding before applying the minimum per pupil funding and the funding floor

3.33. We calculate the NFF pupil-led unit of funding (before applying the minimum per pupil and funding floor) for each school by:

a. Adding together the total funding through each pupil-led factor (basic per pupil, deprivation, LPA, EAL, mobility).

b. Multiplying that total by the school's ACA.

c. Dividing the result by the school's total APT adjusted pupil count.

NFF school-led unit of funding

3.34. We calculate the NFF school-led unit of funding for each school by:

a. Adding together the total funding through the two school-led factors (lump sum and sparsity).

b. Multiplying that total by the school's ACA.

Applying the minimum per pupil funding

3.35. The NFF includes a minimum per pupil funding factor, which sets a minimum per pupil funding that each school attracts through the NFF. This minimum refers to the level in £ of per pupil funding schools attract through the NFF. It differs from the funding floor which provides a minimum increase for each school compared to their 2019-20 school baselines. The funding floor is set out in Paragraph 3.38 and following. The 2020-21 minimum per pupil funding levels for different year groups are set out in Figure 12 below. For each school, the minimum per pupil is a weighted

average of the minimum per pupil for primary, KS3 and KS4, with the weighting determined by the number of year groups in the relevant phase that are present at the school. Only the year groups that actually contain pupils in 2019-20 are counted in this calculation.

Figure 12: minimum per pupil funding levels

Year groups	2020-21 minimum per pupil funding level
Primary	£3,750
KS3	£4,800
KS4	£5,300

3.36. The minimum per pupil for each school is

(£3,750 multiplied by the number of primary year groups

+ £4,800 multiplied by the number of KS3 year groups

+ £5,300 multiplied by the number of KS4 year groups)

divided by the total number of year groups in the school.

This means that for a primary school the minimum per pupil is £3,750 and for a secondary school with year groups 7 to 11, the minimum per pupil is £5,000.

3.37. To calculate whether a school attracts additional funding as a result of the minimum per pupil factor, we compare the school's NFF per pupil funding (before the minimum per pupil funding levels and funding floor are applied) to the minimum per pupil funding level for the school. The calculation of the minimum per pupil funding factor is set out in Figure 13 below.

Figure 13: calculation of the minimum per pupil funding factor

Calculation step	Description	Example
1) NFF pupil-led funding (before the minimum per pupil factor and funding floor)	We start with a school's NFF pupil-led funding (see Paragraph 3.33) before applying the minimum per pupil funding or funding floor (and as if the school were open for the full year).	Secondary school B is open for the whole of 2019-20. School B's NFF pupil-led funding (before the minimum per pupil factor and

Calculation step	Description	Example
		funding floor) is £4,800 per pupil.
2) NFF school-led funding	We also need to derive the school's school-led funding – see Paragraph 3.34 (as if the school were open for the full year).	The NFF school-led funding for school B is £114,400. It attracts a lump sum like every school, but is not eligible for sparsity funding or funding through premises or exceptional factors.
3) APT adjusted pupil count	We use this to calculate the per pupil funding for the minimum per pupil funding factor calculation.	School B has total APT adjusted pupil count of 1,200.
4) NFF per pupil funding used for the minimum per pupil funding calculation	The per pupil NFF funding (before the minimum per pupil factor and funding floor) for a school is equal to: NFF pupil-led funding (before the minimum per pupil factor and funding floor) (step 1) Multiplied by the APT adjusted pupil count (step 3) Plus NFF school-led funding (step 2) Divided by the APT adjusted pupil count (step 3).	School B's per pupil NFF funding (before the minimum per pupil factor and funding floor) is equal to £4,800 multiplied by 1,200 (£5,760,0000), plus £114,400 (£5,874,400) divided by 1,200, which equals £4,895.
5) School's individual minimum per pupil funding level	The calculation of the minimum per pupil funding level for each school is set out in Paragraph 3.36.	School B is a secondary school so the minimum per pupil funding level is (£4,800 x 3 + £5,300 x 2) / (3 + 2) = £5,000.
6) Does the school receive funding through the minimum	If a school's NFF per pupil funding (before minimum per pupil and funding floor) is less than the	School B's per pupil NFF funding (before minimum per pupil

Calculation step	Description	Example
per pupil funding factor?	school's individual minimum per pupil funding level, then the school receives extra funding through the minimum per pupil funding factor. If the NFF per pupil funding is equal to or greater than the school's individual minimum per pupil funding level, then the school receives no extra funding through this factor.	factor and funding floor) is £4,895. This is less than school B's individual minimum per pupil funding level, £5,000. Therefore the school receives a funding uplift through the minimum per pupil funding factor. This is equal to £105 per pupil (£5,000 minus £4,895).
7) NFF per pupil funding (after the minimum per pupil funding, but before the funding floor)	The NFF per pupil funding after minimum per pupil, but before the funding floor, is calculated by adding any per pupil funding through the minimum per pupil funding factor (step 6) to the NFF per pupil funding (step 4) and multiplying by the proportion of the financial year for which the school is open.	School B is open for the full financial year. The NFF per pupil funding (after the minimum per pupil but before the funding floor) is £4,895 plus £105 multiplied by 100%, i.e. the minimum £5,000.

Applying the funding floor

3.38. Schools' baselines for the funding floor are from the notional 2019-20 core NFF allocations. For schools that do not have a 2019-20 baseline, see Annex B for explanation of how a baseline is derived. The NFF's funding floor ensures all schools' NFF allocations see a minimum gain per pupil of 1.84% above their 2019-20 baseline pupil-led funding in 2020-21.

3.39. To calculate whether a school attracts additional funding as a result of the floor, we look at the change between the school's funding floor baseline (per pupil) and its 2020-21 NFF pupil-led funding after the minimum per pupil funding levels have been applied.

3.40. Each school's funding floor baseline (per pupil) is calculated by taking the total of the NFF baselines described in Chapter 2, and subtracting the 2020-21 NFF school-led

funding. This parallels the established minimum funding guarantee (MFG) methodology used in LAs' local funding formulae. It ensures i) that the NFF school-led funding does not go up and down with future pupil number changes and ii) that the change in the school-led funding between the baseline year and the NFF is protected by the funding floor calculation.

3.41. Again, we use 2019-20 APT data for all schools in our calculation of the funding floor for use in LA allocations. Figure 14 sets out the funding floor calculation and a worked example.

Figure 14: calculation of the NFF funding floor baseline for use in LA allocations

Calculation step	Description	Example
1) Total baseline funding	We start with the total baseline from 2019-20 NFF. This is adjusted for the proportion of 2019-20 that the school is open.	School A's baseline core funding is £850,000.
2) NFF school-led unit of funding	The baseline for the funding floor calculation excludes 2020-21 NFF school-led funding. We take account of the proportion of the financial year the school is open in 2019-20.	School A is open for 100% of the financial year, so its 2020-21 NFF school-led funding is £114,400 x 100% = £114,400 (£114,400 is the value of the lump sum; it has no other school-led funding).
3) Baseline pupil count	The funding floor calculation is on a per pupil basis, based on the school's pupil count in the 2019-20 NFF.	School A's baseline pupil count is 190.
4) Funding floor baseline	The baseline for the funding floor is calculated by: Taking the total baseline core funding (step 1) Subtracting the 2020-21 NFF school-led unit of funding (step 2)	School A's funding floor baseline is £3,872. This is £850,000 minus £114,400 (£735,600) divided by 190.

Calculation step	Description	Example
	And dividing the result by the baseline pupil count (step 3).	
5) Minimum gain in 2020-21	The minimum gain per pupil for any school by 2020-21 is a 1.84% increase on their funding floor baseline. To check that each school will see at least a 1.84% gain in 2020-21 we uplift the baseline for the funding floor by 1.84%.	School A's NFF pupil-led funding needs to be at least 1.84% greater than the funding floor baseline – this is £3,872 + 1.84% = £3,943.
6) NFF pupil-led funding (after the minimum per pupil funding but before the funding floor)	We also need to calculate the NFF pupil-led funding, a per pupil unit of funding that excludes the school-led factors, to use in the funding floor calculation. We take the NFF funding per pupil (before the minimum per pupil funding and funding floor), add the per pupil funding through the minimum per pupil funding factor and multiply the result by the pupil count for the 2020-21 NFF. We then subtract the 2020-21 school-led funding and divide the result by the pupil count for the 2020-21 NFF. We multiply the result by the proportion of the financial year for which the school is open.	School A's funding per pupil before minimum per pupil and funding floor is £4,000. There is no minimum per pupil funding. The pupil count for the 2020-21 NFF is 195. The school-led funding is £114,400. School A's NFF pupil-led funding per pupil before funding floor is (£4,000 + £0) x 195 - £114,400) divided by 195, i.e. £3,413.
7) How much funding does the school receive through the	We check that each school's NFF pupil-led funding (after minimum per pupil funding but before the funding floor) (step	School A's NFF pupil-led funding (after minimum per pupil funding but before the funding floor) of £3,413 is less than a 1.84% uplift to the funding floor baseline (£3,943 – step 5), so school A gets £3,943 - £3,413

Calculation step	Description	Example
NFF funding floor factor?	6) delivers the minimum gain in 2020-21 (step 5). If the NFF pupil-led unit of funding is not at least 1.84% greater than the funding floor baseline then the school receives funding through the funding floor factor.	= £529 per pupil through the funding floor factor.
8) NFF pupil-led funding per pupil (after minimum per pupil funding and the funding floor)	This is equal to: NFF pupil-led funding (after minimum per pupil funding but before the funding floor) (step 6) Plus NFF funding floor per pupil (step 7).	School A's NFF pupil-led funding (after minimum per pupil funding and the funding floor) is £3,943 per pupil, which is £3,413 plus £529.

Core schools NFF funding – splitting between primary and secondary

3.42. To calculate each LA's primary and secondary per pupil units of funding for the 2020-21 schools block, we need to split core NFF funding into two categories: primary funding and secondary funding. Most schools only have pupils in one phase (i.e. primary schools and secondary schools), so this is trivial: all the school's core NFF funding is designated as primary funding or as secondary funding as appropriate. But for middle schools and all-through schools with pupils in both phases, we calculate this split as follows:

3.43. First, we split all funding through the basic per pupil, deprivation, low prior attainment, EAL and mobility factors (including ACA uplift) between primary and secondary based on the funding through individual factors – all funding through primary factors (for pupils in Years Reception to 6) is classed as primary funding, and all funding for secondary factors (for pupils in Years 7 to 11) is classed as secondary funding.

3.44. Then, we split all funding through the school-led factors between primary and secondary in proportion to the number of primary and secondary pupils at the school. So if an all-through school has 1,210 pupils, 210 of whom are primary and 1,000 of

whom are secondary, 17% of its school-led funding is primary funding and the remaining 83% is secondary funding.

3.45. Finally, we split any extra funding the school received through the minimum per pupil funding and funding floor factors between primary and secondary in proportion to the number of primary and secondary pupils. So, for example, if a middle school receives £100 per pupil through the funding floor and there are 180 primary pupils and 120 secondary pupils in the school, the primary funding through the funding floor is calculated as £100 multiplied by 180 (£18,000) and the secondary funding equals £100 multiplied by 120 (£12,000).

Chapter 4: NFF allocations to LAs

4.1. This chapter describes the funding that is allocated at LA level. It sets out the calculation of the LA-level primary and secondary units of funding, and funding for premises and growth.

Baseline funding

4.2. The baseline funding for each LA is explained in Chapter 2 and broken into two components:

a. Core schools funding baseline: we take the baseline for each school from the 2019-20 NFF, and aggregate up to LA level. (See Chapter 2 for details of how we calculated this baseline.)

b. Premises factors baseline from the 2019-20 NFF: baseline set out above in Chapter 2.

Provisional funding in 2020-21, based on 2019-20 pupil count

4.3. This section describes how we have calculated the provisional funding allocations to LAs for 2020-21, including how we have calculated their actual primary and secondary units of funding. Specifically, this section describes:

- The calculation of primary and secondary core NFF funding
- The calculation of the primary and secondary units of funding for 2020-21
- The calculation of premises funding
- The calculation of growth funding
- How the units of funding, premises and growth funding are combined to derive LAs' provisional 2020-21 allocations.

Core NFF funding – provisional funding in 2020-21

4.4. Figure 15 sets out the calculation of the total 2020-21 provisional NFF primary and secondary core NFF funding, before adjusting for duplicates.

Figure 15: Total provisional core NFF funding (before adjusting for duplicates) 2020-21

Calculation step	Description	Example
1) Total primary core NFF funding	We take the total NFF primary core schools for all schools in the LA (described in Chapter 3). This covers all primary funding through the school level formula (pupil-led, school-led, minimum per pupil funding and funding floor factors).	LA 1's total NFF primary core NFF funding is £96.3m.
2) Total secondary core NFF funding	We take the total NFF secondary core NFF funding for all schools in the LA (described in Chapter 3). This covers all secondary funding through the school level formula (pupil-led, school-led, minimum per pupil funding and funding floor factors).	LA 1's total NFF secondary core NFF funding is £132.5m.

2020-21 primary and secondary units of funding

4.5. For each LA we calculate a primary unit of funding (PUF) and secondary unit of funding (SUF) for 2020-21. These are final, actual units of funding for 2020-21, and will not be updated at any later point. These actual 2020-21 NFF primary and secondary units of funding will be used to allocate schools block funding to LAs in December 2019. This section describes how the PUFs and SUFs have been calculated; the next section then describes how they will be used to calculate LAs' actual schools block allocations for 2020-21.

4.6. Figure 16 sets out the calculation of the 2020-21 NFF primary and secondary units of funding.

Figure 16: 2020-21 LA level NFF primary and secondary units of funding

Calculation step	Description	Example
1) Total provisional primary 2020-21 core NFF funding	The total primary core NFF funding in the 2020-21 NFF, based on 2019-20 data. Figure 15, step 1.	LA 1's total primary 2020-21 core NFF funding is £96.3m.
2) Primary pupil count	The primary pupil count is based on the 2019-20 adjusted APT pupil count for all schools open in financial year 2019-20. Each school's contribution to this pupil count takes account of the proportion of the financial year for which the school is open. For each school in the LA we take: The 2019-20 primary adjusted APT pupil count (based on October 2018 census) and multiply it by the proportion of the financial year 2019-20 the school is open Then we aggregate up these amounts to LA level and subtract the total number of census duplicate pupils for the LA that were not apportioned in the 2019-20 DSG allocation.	LA 1's total primary pupil count is 25,000. LA 1 has 50 duplicate primary pupils. After adjusting for duplicate pupils, the total primary pupil count is 24,950.
3) 2020-21 NFF PUF	To calculate the 2020-21 LA level NFF PUF we divide the total primary 2020-21 core NFF funding (step 1) by the LA's primary pupil count after adjusting for duplicates (step 2).	LA 1's 2020-21 NFF PUF is equal to £96.3m divided by 24,950 primary pupils, £3,860.

Calculation step	Description	Example
4) Total provisional secondary 2020-21 core NFF funding	The total secondary core NFF funding in the 2020-21 NFF, based on 2019-20 data. Figure 15, step 2.	LA 1's total secondary 2020-21 core NFF funding is £132.5m.
5) Secondary pupil count	The secondary pupil count is based on the 2019-20 adjusted APT pupil count for all schools open in financial year 2019-20. Each school's contribution to this pupil count takes account of the proportion of the financial year for which the school is open. For each school in the LA we take: The 2019-20 secondary adjusted APT pupil count (based on October 2018 census) And multiply it by the proportion of the financial year 2019-20 the school is open Then we aggregate these amounts up to LA level and subtract the total number of census duplicate pupils for the LA that were not apportioned in the 2019-20 DSG allocation.	LA 1's total secondary pupil count is 23,000. LA 1 has 60 duplicate primary pupils. After adjusting for duplicate pupils, the total secondary pupil count is 22,940.
6) 2020-21 NFF SUF	To calculate the 2020-21 LA level NFF SUF we divide the total secondary 2020-21 core NFF funding (step 4) by the secondary pupil count (step 5).	LA 1's 2020-21 NFF SUF is equal to £132.5m divided by 22,940 secondary pupils, £5,776.

2020-21 actual premises funding

4.7. Our approach for allocating premises funding at LA level under the NFF for 2020-21 is to use the levels of funding given on LAs' 2019-20 APTs. For the PFI factor, we have uprated all positive amounts on the 2019-20 APTs in line with inflation, using RPIX data (retail prices index for all items excluding mortgage interest) for the year to

April 2019 that has been published by the Office for National Statistics. For each LA we:

a. Take the 2019-20 PFI premises factor baseline as given on the 2019-20 APT and uplift it in line with RPIX growth from April 2018 to April 2019 (3.03%)[6]. The exception to this is if the PFI figure on the 2019-20 APT for a school is negative. In this case it is rolled over and not uplifted by RPIX.

b. Take the premises factor 2019-20 APT spend for all other factors (split sites, rates, exceptional circumstances 1-7[7]).

c. Add the totals from these two steps together to give the 2020-21 NFF actual funding through the premises factors.

This calculation is final, and will not be updated at any later point.

Local authority protection

4.8. All LAs will see an increase of at least 1.84% between their 2019-20 and 2020-21 schools block NFF allocations excluding growth. This has been shown on a provisional basis in the NFF summary table and will be recalculated based on final DSG allocations in December 2019.

2020-21 growth funding

4.9. In the 2020-21 DSG settlement in December 2019 we will allocate growth funding at LA Level, based on the observed differences between the primary and secondary number on roll in each LA between the October 2018 and October 2019 school censuses. Growth will continue to be subject to transitional protection, based on the 2019-20 DSG growth allocation. We have not published provisional growth allocations because, as they are determined by October 2019 pupil numbers, it would not provide meaningful information at this stage. See Annex C for further details about the methodology to be used for actual allocations in December.

Total provisional funding in 2020-21

4.10. We have published the total provisional funding (excluding the growth factor) that each LA would receive under the NFF (2020-21) based on 2019-20 data. Figure 17 sets out the calculation of the total provisional funding in 2020-21.

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[6] Source: Office for National Statistics RPIX

[7] Excluding a payment relating to prior attainment

4.11. For this calculation, we have treated unresolved duplicate pupil numbers in the school census dataset by sharing them proportionally across the schools in which they are recorded (so a pupil found in two schools as a main enrolment would be treated as 50% in each school). In order to illustrate this, the total provisional funding has been calculated using the 2019-20 DSG schools block counts with the unresolved duplicates apportioned[8]. The PUFs and SUFs have been adjusted to account for this change (see Figure 16, steps 2 and 5)

Figure 17: Total provisional funding (excluding the growth factor) in 2020-21

Calculation step	Description	Example
1) Total primary 2020-21 core NFF funding	The provisional total funding through primary core schools factors. PUF (Figure 16 step 3) multiplied by 2019-20 DSG schools block primary pupil count.	LA 1's total primary 2020-21 core NFF funding is £3,860 multiplied by 24,950 £96.3m.
2) Total secondary 2020-21 core NFF funding	The provisional total funding through secondary core schools factors. SUF (Figure 16 step 6) multiplied by 2019-20 DSG schools block secondary pupil count.	LA 1's total secondary 2020-21 core NFF funding is £5,776 multiplied by 22,940 £132.5m.
3) 2020-21 provisional funding through the core schools formula	This is: The provisional 2020-21 primary core NFF funding (step 1) Plus the provisional 2020-21 secondary core NFF funding (step 2)	LA 1's total provisional 2020-21 core NFF funding is £228.8m.
4) 2020-21 funding through premises	This is the total funding by LAs through the premises factor in 2019-20. This will be used to calculate final funding allocations to LAs for 2020-21 in December 2019 (as described in Paragraph 4.47).	LA 1's total funding through the premises factor is £10m.

[8] This returns the DSG count to the method used prior to 2019-20 and is consistent with the approach taken in the high needs block. The same applies to the central school services block.

Calculation step	Description	Example
5) Total provisional funding (excluding growth) in 2020-21	The total provisional funding (excluding growth) in 2020-21 is equal to: The 2020-21 provisional funding through the core schools formula (step 3) Plus the 2020-21 funding through premises (step 4).	The total provisional funding (excluding growth) in 2020-21 for LA 1 is £238.8m
6) LA protection	We ensure that the NFF funding plus premises funding for 2020-21 is at least 1.84% more than the core and premises funding in the 2019-20 schools block NFF,	LA 1's total core and premises funding in the 2019-20 schools block NFF was £236.4m. The 2020-21 allocation of £238.8m is an increase of 1.02%. We give the LA an additional 0.82% of their 2019-20 allocation (£1.95m), making a total of £240.75m for 2020-21, which is 1.84% more than the 2019-20 allocation.

What we have published at LA level

4.12. As part of the 2020-21 announcement we have published the "NFF summary table" which sets out the impact of the NFF on LAs. These LA-level figures cover:

a. the 2019-20 baseline,

b. the actual 2020-21 units of funding for each LA that will be used to calculate schools block allocations in December 2019,

c. the provisional impact of the 2020-21 NFF.

Chapter 5: Calculating school-level notional allocations

5.1. Chapters 2 and 3 set out the school-level calculations that feed in to the calculation of LA level allocations, described in Chapter 4.

5.2. We have also published school-level figures which illustrate the impact of the NFF for each school. These figures do not show the actual amount of funding that schools will receive in 2020-21. This is because each LA will still be responsible for setting the individual funding formulae for 2020-21 for their area, and LAs' allocations to schools for 2020-21 will be based on data from the October 2019 school census, while the notional NFF allocations for 2020-21 are based on data from the October 2018 census.

5.3. To calculate the school-level notional figures we use 2019-20 APT data for LA maintained schools and 2019/20 GAG data for academies and free schools. For most academies and free schools there is no difference between these two data sources, so the published school-level figures are the same as the school-level figures which we have used in the LA-level calculations. However, for some academies and free schools there are differences between APT and GAG data. There are two reasons for differences between APT and GAG data:

a. Some academies and free schools are funded on estimated pupil numbers rather than census pupil numbers. LAs do not have to use these estimated pupil numbers in the APT.

b. Some academies and free schools have received a higher level of funding in the past and so are protected against a higher baseline than used in the APT.

How does this affect the calculation?

5.4. For the purpose of illustrating the impact of the 2020-21 NFF on individual schools, anywhere the calculations refer to a total number of pupils, a funding baseline or the proportion of the baseline year the school is open, GAG data is used for academies and free schools, but APT data is used for maintained schools. The precise areas that are affected are listed in this section. In all but one case the details of the calculation are the same as the calculation for LA-level allocations that are described in Chapters 2 and 3, and only the input data changes.

APT or GAG adjusted pupil count

5.5. As set out in Chapter 3, the adjusted pupil count excludes reception uplift. The adjusted pupil count calculation for school-level illustrations is the same as for the LA allocation calculations, however we use GAG data where applicable for the pupil count and reception uplift for academies and free schools.

APT or GAG premises

5.6. GAG premises funding does not include funding for rates. Academies and free schools never receive their rates funding through their GAG allocation; instead they are separately reimbursed for their actual rates costs by the Education and Skills Funding Agency. So for LA maintained schools the premises baseline includes rates, but for academies the premises baseline excludes rates.

5.7. Premises funding has been shown at 2019-20 APT or 2019/20 GAG amounts. This has been included in the illustration for consistency with the LA level allocations but schools should not necessarily expect to see this funding repeated in their actual 2020-21 or 2020/21 allocations.

NFF pupil-led unit of funding (pre minimum per pupil funding and funding floor)

5.8. The calculation is done as set out in Chapter 3. The differences in input data for academies and free schools are:

a. The primary, KS3 and KS4 adjusted pupil counts are based on GAG data where applicable. These pupil counts are used to calculate the basic per pupil funding.

b. The funding amounts through additional needs factors are based on the proportion of primary or secondary pupils eligible for each factor (these proportions are the same in both the APT and GAG data) and the primary and secondary adjusted pupil count from GAG data where applicable. The total number of pupils eligible for each factor is equal to the eligible proportion multiplied by the GAG primary or secondary pupil count.

c. The proportion of the year for which a school is open is based on GAG data where applicable (refers to academic year rather than financial year).

NFF school-led unit of funding

5.9. The calculation is also carried out as described in Chapter 3. The differences in input data for academies and free schools are:

a. The sparsity calculation of the average year group size refers to the GAG adjusted pupil count and year group data where applicable.

b. The proportion of the year for which a school is open is based on GAG data where applicable (refers to academic year).

NFF minimum per pupil unit of funding

5.10. The calculation is described in Chapter 3. The differences in input data for academies and free schools are that:

a. The adjusted pupil count is based on GAG data where applicable.

b. The proportion of the year open is based on GAG data where applicable (refers to academic year).

NFF funding floor

5.11. The calculation of the funding floor is set out in Chapter 3. The differences in input data for academies and free schools are that:

a. The funding floor baseline is based on GAG data where applicable.

b. The adjusted pupil count is based on GAG data where applicable.

NFF premises funding

5.12. We have included premises funding in the notional school-level figures. The calculation of NFF premises funding here is very similar to the calculation at LA level. Notional 2020-21 premises funding amounts at school level are calculated as

a. the 2019-20 PFI baseline uplifted in line with the RPIX growth from April 2018 to April 2019 plus [9]
b. the 2019-20 baseline amounts for the other premises factors.

What have we published at a school level?

5.13 Our school-level impact table sets out figures for each school. Figure 18 sets out the definition of each output.

[9] The exception to this is if the PFI figure on the 2019-20 APT for a school is negative. In this case it is rolled over and not uplifted by RPIX.

Figure 18: Published output, school level illustrations

Published output	Description
1) Funding baseline	This is the 2019-20 NFF funding allocation, based on APT data for maintained schools and GAG data for academies and free schools.
2) Notional total funding in 2020-21 for maintained schools or 2020/21 for academies	This is the total funding under the 2020-21 NFF. **For LA maintained schools:** This is based on 2019-20 APT data and the 2020-21 NFF. The total notional 2020-21 funding is equal to: The 2020-21 NFF pupil-led unit of funding multiplied by the 2019-20 APT adjusted pupil count Plus the NFF school-led unit of funding Plus the notional 2020-21 premises funding. **For academies and free schools:** The notional total funding is based on 2019/20 GAG data and on the 2020-21 NFF. The total notional 2020/21 funding is equal to: The 2020-21 NFF pupil-led unit of funding multiplied by the 2019/20 GAG adjusted pupil count Plus the NFF school-led unit of funding Plus the notional 2020-21 premises funding.

Annex A: Area Cost Adjustment (ACA)

A.1. The methodology for the teacher pay element of the national funding formula ACA is designed to bring out the differences in pay ranges between the four regional pay bands (Inner London, Outer London, Fringe and Rest of England), but not to reflect any regional differences in distribution along the pay ranges. We do not want the teacher pay cost adjustment to reflect regional differences in staffing choices; we only want it to reflect the differences in pay ranges between the four regional pay bands. E.g. If in Inner London there are fewer teachers in the leadership grade compared to the national average we do not want this to skew the teacher pay cost adjustment.

A.2. We calculate a notional average salary for each regional pay band to measure the differences between pay bands. The first step in this calculation is to create four data sets, one for each regional pay band. We include actual or notional pay for all teachers in England in each dataset. To do this we need four versions of pay data for each teacher, their actual basic pay (used to populate the dataset of the regional pay band they work in) and three notional pay figures (used to populate the datasets for the other three regional pay bands). The notional pay is the pay a teacher would receive if they worked in a different regional pay band at the same level. The notional average salary for each regional pay band is the mean of each dataset. As we include all teachers in each dataset the only difference between the notional average salaries are the differences between the regional pay bands.

A.3. The basic pay is the gross salary minus allowances (allowances are classified into teaching and learning responsibilities, special educational needs, recruitment and retention and other).

A.4. The calculation used to transform the basic pay of each teacher in England from the teacher's actual pay band to the notional pay for the other three regional pay bands is set out in an example below. This transformation is repeated for all teachers and all regional pay bands. E.g. The transformation to Inner London notional basic pay for a teacher who is in the Rest of England, is calculated as follows:

a. First, calculate the difference between the actual basic pay for the teacher and the bottom of the teacher's actual pay range (the Rest of England range in this case) for this teacher's grade (leadership, leading practitioner, upper pay range, main pay range or unqualified teacher). The pay ranges are as defined in the School Teachers' Pay and Conditions Document (STPCD) for the relevant year (e.g. STPCD 2018 if November 2018 salaries are used).

b. Then calculate the difference between the top and bottom of the Inner London pay range for this teacher's grade and divide by the difference between the top and bottom of the teacher's actual pay range (the Rest of England in this case).

This gives an uplift which is used to convert the teacher's actual basic pay to their Inner London notional basic pay.

c. Apply the uplift calculated in step b to the distance from the bottom of the pay range to the teacher's actual basic pay, calculated in step a.

d. Add the figure calculated in step c to the bottom of the pay range for Inner London for this teacher's grade. This gives the Inner London notional pay for this teacher.

A.5. The following groups of staff are included in our calculation of the ACA teachers' pay cost adjustment:

a. Qualified and unqualified teachers

b. Full-time and part-time teachers

c. Classroom teachers and leaders

d. Teachers in primary, secondary and special schools and in alternative provision.

A.6. The following groups of staff are not included in our calculation of the ACA teachers' pay cost adjustment:

a. Centrally employed teachers

b. Some supply teachers (those who are not included in the School Workforce Census)

c. Teachers with incomplete or unreliable pay data

A.7. The following caveats apply:

a. Data is collected in the School Workforce Census in early November each year, at a time when not all schools have held pay determination meetings for their teachers. This means that salaries of some teachers reflect the previous academic year.

b. Approximately 1-2% of schools do not provide School Workforce Census data each year.

A.8. The teachers' specific cost adjustment (SCA) for each regional pay band is calculated by dividing the mean notional basic pay for that pay band by the mean notional basic pay for the Rest of England pay band.

A.9. The non-teacher pay element of the national funding formula ACA is based on the general labour market specific labour cost adjustment calculated for 2013-14 by what is now the Ministry of Housing, Communities and Local Government.

A.10. The teacher and non-teaching staff elements of the national funding formula ACA are weighted in proportion to actual expenditure on teaching and non-teaching staff in primary and secondary schools and academies[10] [11].

A.11. The national teacher proportion is the total expenditure on teachers divided by total expenditure on teachers, non-teaching staff and non-pay combined, 52.8%. The non-teaching staff proportion is total expenditure on non-teaching staff divided by total expenditure on teachers, non-teaching staff and non-pay combined, 27.6%.

A.12. Figure 19 sets out the SB ACA for each LA for the 2020-21 NFF.

Figure 19: schools block ACA for each LA

Local authority name	Districts	Area cost adjustment
Barking and Dagenham	Barking and Dagenham	1.12985
Barnet	Barnet	1.09902
Barnsley	Barnsley	1.00000
Bath and North East Somerset	Bath and North East Somerset	1.01459
Bedford	Bedford	1.01565
Bexley	Bexley	1.08274
Birmingham	Birmingham	1.00337
Blackburn with Darwen	Blackburn with Darwen	1.00000
Blackpool	Blackpool	1.00000
Bolton	Bolton	1.00545
Bournemouth, Christchurch and Poole	Bournemouth, Christchurch and Poole	1.00000
Bracknell Forest	Bracknell Forest	1.05694
Bradford	Bradford	1.00016

[10] The data source for expenditure in maintained schools is Consistent Financial Reporting 2017-18 and for expenditure in academies is Academies' Accounting Returns 2017/18

[11] For high needs block of the NFF, the ACA weighting is based on staff expenditure in special schools and alternative provision establishments instead of mainstream schools. In other respects, the ACAs for the schools block and high needs are similar.

Local authority name	Districts	Area cost adjustment
Brent	Brent	1.14614
Brighton and Hove	Brighton and Hove	1.00169
Bristol	Bristol	1.01459
Bromley	Bromley	1.08274
Buckinghamshire Fringe	Chiltern, South Buckinghamshire	1.04670
Buckinghamshire non-Fringe	Aylesbury Vale, Wycombe	1.02863
Bury	Bury	1.00545
Calderdale	Calderdale	1.00016
Cambridgeshire	All	1.01282
Camden	Camden	1.18381
Central Bedfordshire	Central Bedfordshire	1.01565
Cheshire East	Cheshire East	1.00362
Cheshire West and Chester	Cheshire West and Chester	1.00362
Cornwall	Cornwall	1.00000
Durham	Durham	1.00000
Coventry	Coventry	1.00337
Croydon	Croydon	1.08274
Cumbria	All	1.00000
Darlington	Darlington	1.00000
Derby	Derby	1.00000
Derbyshire	All	1.00000
Devon	All	1.00000
Doncaster	Doncaster	1.00000
Dorset	Dorset	1.00000
Dudley	Dudley	1.00337
Ealing	Ealing	1.14614

Local authority name	Districts	Area cost adjustment
East Riding of Yorkshire	East Riding of Yorkshire	1.00000
East Sussex	All	1.00169
Enfield	Enfield	1.08274
Essex Fringe	Basildon, Brentwood, Epping Forest, Harlow	1.03757
Essex non-Fringe	Braintree, Castle Point, Chelmsford, Colchester, Maldon, Rochford, Tendring, Uttlesford	1.00353
Gateshead	Gateshead	1.00000
Gloucestershire	All	1.00629
Greenwich	Greenwich	1.18381
Hackney	Hackney	1.18381
Halton	Halton	1.00362
Hammersmith and Fulham	Hammersmith and Fulham	1.18381
Hampshire	All	1.01416
Haringey	Haringey	1.12985
Harrow	Harrow	1.09902
Hartlepool	Hartlepool	1.00000
Havering	Havering	1.08274
Herefordshire	Herefordshire	1.00000
Hertfordshire Fringe	Broxbourne, Dacorum, East Hertfordshire, Hertsmere, St Albans, Three Rivers, Watford, Welwyn Hatfield	1.04670
Hertfordshire non-Fringe	North Hertfordshire, Stevenage	1.01565
Hillingdon	Hillingdon	1.09902
Hounslow	Hounslow	1.09902
Isle of Wight	Isle of Wight	1.01416
Islington	Islington	1.18381
Kensington and Chelsea	Kensington and Chelsea	1.18381
Kent Fringe	Dartford, Sevenoaks	1.03757

Local authority name	Districts	Area cost adjustment
Kent non-Fringe	Ashford, Canterbury, Dover, Gravesham, Maidstone, Shepway, Swale, Thanet, Tonbridge and Malling, Tunbridge Wells	1.00070
Kingston upon Hull, City of	Kingston upon Hull, City of	1.00000
Kingston upon Thames	Kingston upon Thames	1.09902
Kirklees	Kirklees	1.00016
Knowsley	Knowsley	1.00112
Lambeth	Lambeth	1.18381
Lancashire	All	1.00000
Leeds	Leeds	1.00016
Leicester	Leicester	1.00000
Leicestershire	All	1.00000
Lewisham	Lewisham	1.18381
Lincolnshire	All	1.00000
Liverpool	Liverpool	1.00112
Luton	Luton	1.01565
Manchester	Manchester	1.00545
Medway	Medway	1.00070
Merton	Merton	1.14614
Middlesbrough	Middlesbrough	1.00000
Milton Keynes	Milton Keynes	1.02863
Newcastle upon Tyne	Newcastle upon Tyne	1.00000
Newham	Newham	1.12985
Norfolk	All	1.00000
North East Lincolnshire	North East Lincolnshire	1.00000
North Lincolnshire	North Lincolnshire	1.00000
North Somerset	North Somerset	1.01459

Local authority name	Districts	Area cost adjustment
North Tyneside	North Tyneside	1.00000
North Yorkshire	All	1.00000
Northamptonshire	All	1.00328
Northumberland	Northumberland	1.00000
Nottingham	Nottingham	1.00276
Nottinghamshire	All	1.00276
Oldham	Oldham	1.00545
Oxfordshire	All	1.02216
Peterborough	Peterborough	1.01282
Plymouth	Plymouth	1.00000
Portsmouth	Portsmouth	1.01416
Reading	Reading	1.03468
Redbridge	Redbridge	1.08274
Redcar and Cleveland	Redcar and Cleveland	1.00000
Richmond upon Thames	Richmond upon Thames	1.09902
Rochdale	Rochdale	1.00545
Rotherham	Rotherham	1.00000
Rutland	Rutland	1.00000
Salford	Salford	1.00545
Sandwell	Sandwell	1.00337
Sefton	Sefton	1.00112
Sheffield	Sheffield	1.00000
Shropshire	Shropshire	1.00000
Slough	Slough	1.05694
Solihull	Solihull	1.00337
Somerset	All	1.00000

Local authority name	Districts	Area cost adjustment
South Gloucestershire	South Gloucestershire	1.01459
South Tyneside	South Tyneside	1.00000
Southampton	Southampton	1.01416
Southend-on-Sea	Southend-on-Sea	1.00353
Southwark	Southwark	1.18381
St Helens	St Helens	1.00112
Staffordshire	All	1.00000
Stockport	Stockport	1.00545
Stockton-on-Tees	Stockton-on-Tees	1.00000
Stoke-on-Trent	Stoke-on-Trent	1.00000
Suffolk	All	1.00002
Sunderland	Sunderland	1.00000
Surrey	All	1.05694
Sutton	Sutton	1.09902
Swindon	Swindon	1.00716
Tameside	Tameside	1.00545
Telford and Wrekin	Telford and Wrekin	1.00000
Thurrock	Thurrock	1.03757
Torbay	Torbay	1.00000
Tower Hamlets	Tower Hamlets	1.18381
Trafford	Trafford	1.00545
Wakefield	Wakefield	1.00016
Walsall	Walsall	1.00337
Waltham Forest	Waltham Forest	1.08274
Wandsworth	Wandsworth	1.18381
Warrington	Warrington	1.00362

Local authority name	Districts	Area cost adjustment
Warwickshire	All	1.00700
West Berkshire	West Berkshire	1.03468
West Sussex Fringe	Crawley	1.05694
West Sussex non-Fringe	Adur, Arun, Chichester, Horsham, Mid Sussex, Worthing	1.00000
Westminster	Westminster	1.18381
Wigan	Wigan	1.00545
Wiltshire	Wiltshire	1.00716
Windsor and Maidenhead	Windsor and Maidenhead	1.05694
Wirral	Wirral	1.00112
Wokingham	Wokingham	1.03468
Wolverhampton	Wolverhampton	1.00337
Worcestershire	All	1.00000
York	York	1.00000

Annex B: Schools new in 2019-20

B.1. There are three categories of school that did not exist in the 2019-20 NFF: brand new schools, schools that have been created by amalgamating together two or more predecessor schools, and schools that have been created by splitting a school into two or more smaller schools.

B.2. For each such school, 2019-20 NFF baselines need to be created. This annex explains how this is done for each category.

B.3. As stated above, we no longer calculate 'if-full' baselines (i.e. the baseline level of funding a school would have received if it had been full) for new and growing schools, or use an 'if-full' pupil count at any stage in the calculation. We are now calculating NFF allocations for new and growing schools that existed in the NFF in 2019-20 based on the current pupil count, as we do for all other schools.

Brand new schools

B.4. Brand-new schools (new schools on the 2019-20 APT that have no predecessor in the 2018-19 APT and were therefore not included in the 2019-20 NFF) require a theoretical 2019-20 baseline.

B.5. To calculate these theoretical baselines we use the average primary or secondary 2019-20 NFF funding per pupil for the relevant LA.

Step 1 We calculate the pupil-led funding amount per pupil for each school in the relevant LA that was included in the 2019-20 NFF. We exclude

a. Schools which were identified as new and growing for the 2019-20 NFF (i.e. schools which opened in the previous seven years and did not yet have pupils in all their planned year groups)

b. schools with theoretical baselines and

c. all-through and middle schools.

We calculate the pupil-led funding amount per pupil by summing their core 2019-20 NFF allocation and mobility funding, then subtracting lump sum and sparsity (each multiplied by the relevant area cost adjustment from the 2019-20 NFF) and premises. The result is divided by the total NOR for these schools in the 2019-20 NFF. Schools that were shown in the 2019-20 NFF as only being open for part of the year are treated as having been open for the full year, and their funding is adjusted accordingly.

Step 2 We take the average per pupil 2019-20 pupil-led funding rate per pupil for all primary and secondary schools in the relevant LA. This gives a primary

and secondary per-pupil baseline 'rate' for each LA.

Step 3 For each new school that requires a theoretical baseline, we multiply the new school's primary and secondary NOR (from the 2019-20 APT) by their LA's primary and secondary per-pupil baseline rate respectively. This gives a pupil-led total.

Step 4 We then take the pupil-led total and add the 2019-20 NFF ACA-adjusted lump sum (i.e. £110,000 multiplied by the ACA for the district in which the school sits) to give the total baseline. The baseline for new schools does not include funding for sparsity or premises.

B.6. The rates we have calculated for each LA will be supplied for use in the 2020-21 APT if the LA wishes to adopt them.

Amalgamating schools

B.7. Our approach to deriving the 2019-20 baselines for amalgamating schools uses the same method as the APT; we add together the 2019-20 NFF allocations of the predecessor schools.

Step 1 Take the total 2019-20 NFF funding (excluding premises and adjusted for the full year) for each predecessor school (n = the number of schools) and add them together to form an amalgamated baseline.

Step 2 Take (n-1) ACA-adjusted 2019-20 lump sums off this amalgamated baseline total (where the predecessor schools had different ACAs, we deduct the one which reflects the characteristics of the successor school).

Split schools

B.8. Where the successor schools are all of the same phase as the predecessor (for example, a primary school splitting into separate infant and junior schools) then each of the successor schools is given the predecessor's 2019-20 NFF per-pupil pupil-led baseline. This is then multiplied by the NOR of the school for which the baseline is being calculated, before adding the 2019-20 NFF ACA-adjusted lump sum. For all other split schools we use the approach taken for brand new schools (see Paragraph B.2).

Baseline NOR

B.9. For these 3 types of schools that didn't exist in the 2019-20 NFF a theoretical baseline NOR is also needed for the purpose of the funding floor calculation (which is described in Chapter 3). The baseline NOR is taken to be

a. 2019-20 APT NOR for 'New schools' and 'Split schools'

b. The sum of predecessors' APT NOR for 'Amalgamating schools'

GAG Theoretical baselines

B.10. The above steps explain how theoretical baselines are calculated in the framework of the APT only data. Equivalent baselines are also calculated following the same steps but using the equivalent GAG data rather than APT data where it exists for academies.

Annex C: Actual 2020-21 growth funding

C.1. Our approach for allocating growth funding to LAs under the NFF for 2020-21 will be to base funding on growth in schools in the local authority area as observed between the October 2018 and October 2019 school censuses. We measure growth at the level of middle layer super output areas (MSOAs) [12], to capture growth in small geographical areas within local authorities. The growth allocation for each LA will be based on an amount per new primary pupil and an amount per new secondary pupil, plus a lump sum amount for each brand new school. For each LA we:

a. Use school postcode information to identify which MSOA each school is located in.
b. Count the primary and secondary pupils at schools within each MSOA in the October 2018 and October 2019 censuses[13].
c. Still at MSOA level, subtract the October 2018 primary count from the October 2019 primary count, giving a primary growth count for each MSOA within the LA, then do the same for secondary. This will be a negative number for any MSOAs with a reduction in pupil numbers between the two censuses.
d. For each phase, sum all positive MSOA growth for each MSOA in the LA to give LA-level primary and secondary growth.
e. Identify any new school in the October 2019 census (new schools are those schools appearing on the October 2019 census for the first time, where no predecessor is found)
f. Calculate the total LA-level growth funding following the steps set out in Figure 21 below.

Figure 20: Total LA-Level growth funding, 2020-21

Calculation step	Description
1) Total primary growth funding	Total primary LA growth count x ACA x £1,425
2) Total secondary growth funding	Total secondary LA growth count x ACA x £2,130
3) Total new schools funding	New schools count x ACA x £67,000
4) Total growth allocation	1) + 2) + 3)

[12] These are areas used by the Office for National Statistics, based on population data.

[13] If an MSOA crosses LA boundaries, then we count the primary and secondary pupils within that MSOA in each LA separately, i.e. we treat the MSOA each side of the LA boundary as a unique MSOA.

2020-21 transitional growth funding

C.2. In 2020-21 we will continue to apply transitional protection to LAs' growth funding. The maximum reduction in growth funding will be set at -0.5% of an LA's total DSG schools block allocation in 2019-20.

C.3. The only difference to the growth funding methodology in 2020-21 is the removal of the gains cap on growth funding allocations. This means LAs will no longer see gains above 50% from the previous year scaled back.

Figure 21: Transitional Growth Funding in 2020-21

Calculation step	Example LA on the floor	Example LA on the formula
1) Total growth allocation in 2019-20	LA4's growth allocation was £1m.	LA5's growth allocation was £100k.
2) Total schools block allocation in 2019-20	LA4's total allocation was £90m including £1m growth.	LA5's total allocation was £21m including £100k growth.
3) Total growth allocation in 2020-21	£400k	£50k
4) Calculate the change in growth funding	LA4's growth funding was £1m in 2019-20 and is £400k in 2020-21, a change of -£600k.	LA5's growth funding was £100k in 2019-20 and is £50k in 2020-21, a change of -£50k.
5) Calculate the change in growth funding as a % of the 2019-20 schools block allocation	The reduction in LA4's growth allocation between 2019-20 and 2020-21 is £600k (step 4) which represents 0.67% of the total schools block allocation (step 2).	The reduction in LA5's growth allocation between 2019-20 and 2020-21 is £50k (step 4) which represents 0.24% of the total schools block (step 2).

Calculation step	Example LA on the floor	Example LA on the formula
6) Apply the growth funding floor at -0.5% of the total schools block allocation	LA4 is below the floor (losing 0.67% over the whole 2019-20 schools block) so is allocated an additional £150k (to create an overall reduction of £450k which is equal to 0.5% of the total 2019-20 schools block).	LA5 is above the floor (losing 0.24% (step 5) over the whole schools block) so does not receive any floor transitional protection.
8) Total growth funding after transitional protections 2020-21 growth funding allocation (step 3) + floor protection (step 6)	LA4: £400k + £150k = £550k	LA5: £50k + £0 = £50k

Department for Education

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