



Department
for Education

Schools block national funding formula: technical note

July 2021

Contents

Chapter 1: Introduction and overview	4
Introduction	4
Differences between the 2021-22 NFF and the 2022-23 NFF	5
Data and modelling approach	5
Chapter 2: Establishing baseline funding for LA allocations	7
Core NFF funding baseline	7
Baseline pupil count	7
Baseline core funding	7
Baseline pupil-led funding per pupil	8
Premises factors baselines	8
Chapter 3: Core NFF funding calculation for LA allocations	9
Basic per-pupil funding	10
Additional needs funding	10
Socio-economic deprivation – eligibility for free school meals (FSM)	11
Socio-economic deprivation – Area-level deprivation data: Income Deprivation Affecting Children Index (IDACI)	12
Low prior attainment factor (LPA)	14
English as an additional language factor (EAL)	15
Mobility Factor	16
Lump sum	18
Sparsity	18
Sparsity weighting	20
Area cost adjustment (ACA)	24
NFF pupil-led unit of funding before applying the minimum per pupil funding and the funding floor	25
NFF school-led unit of funding	25
Applying the minimum per pupil funding factor	26
Applying the funding floor	28
Core schools NFF funding – splitting between primary and secondary	30
Chapter 4: NFF allocations to LAs	32
Core NFF funding – provisional funding in 2022-23	32

2022-23 primary and secondary units of funding	32
2022-23 actual premises funding	34
2022-23 funding through the growth factor	35
Total provisional funding in 2022-23	35
What we have published at LA level	36
Chapter 5: Calculating school-level notional allocations	38
Using APT or GAG data in the calculations	38
APT or GAG adjusted pupil count	38
APT or GAG premises	39
NFF pupil-led unit of funding (pre minimum per pupil funding and funding floor)	39
NFF school-led unit of funding	39
NFF minimum per pupil unit of funding	40
NFF funding floor	40
NFF premises funding	40
What have we published at a school level?	41
Annex A: Area cost adjustment (ACA)	42
Annex B: Baselines for schools new in 2022-23	49
Brand new schools	49
Amalgamating schools	50
Split schools	50
Baseline NOR	50
GAG theoretical baselines	50
Annex C: Sparsity – calculation of road distance	52
Annex D: Actual 2022-23 funding through the growth factor	54
Transitional funding for growth	55

Chapter 1: Introduction and overview

Introduction

- 1.1. This document explains how we have calculated the local authority (LA) level schools block (SB) actual primary and secondary units of funding for the financial year to 31 March 2023 (the year 2022-23). It also covers the calculation of the provisional LA-level and notional school-level 2022-23 total funding allocations under the national funding formula (NFF).
 - a. Chapter 2 sets out how we have defined the baseline pupil count and funding, which are used to apply the funding floor and to understand the impact of the NFF. LAs can see these calculations in NFF Report D2 which will be 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 2022-23 primary and secondary units of funding (which will be used to derive the final SB funding for LAs in December 2021) and provisional NFF SB allocations to LAs for 2022-23.

- b. Notional NFF allocations to schools for 2022-23.

Differences between the 2021-22 NFF and the 2022-23 NFF

- 1.5. The main formula in 2022-23 is similar to the formula in 2021-22. However, we have introduced some changes:¹
 - a. Unit values have been increased as set out in Chapter 3.
 - b. The NFF calculations for 2022-23 are based on the most up-to-date school and pupil characteristics data. These are taken from the 2021-22 authority proforma tool (APT) data and the 2021/22 general annual grant (GAG) data.
 - c. As announced in the Department's [response to the sparsity consultation](#), we have made two changes. Sparsity funding is now based on road distance instead of on straight-line distance from pupils' home to school, and a sparsity distance taper has been introduced, in addition to the existing year group size taper.
 - d. As previously announced, data on pupils who have been eligible for free school meals at any time in the last six years (FSM6) is now taken from the October 2020 school census instead of from the January census, to bring the factor into line with arrangements for pupil premium.
 - e. In calculating low prior attainment proportions, data from the 2019 early years foundation stage profile (EYFSP) and key stage 2 (KS2) tests is used as a proxy for the 2020 assessments, which were cancelled due to the pandemic.
 - f. Pupils who joined a school between January and May 2020 attract funding for mobility on the basis of their entry date, rather than by virtue of the May school census being their first census at the current school (the May 2020 census was cancelled due to COVID-19).

Data and modelling approach

- 1.6. To calculate the LA-level SB 2022-23 units of funding and provisional impacts at LA level of the NFF, we have used pupil and school characteristics data from the 2021-22 APT, which is based on October 2020 school census data, as adjusted by LAs².
- 1.7. To illustrate the impact of the formula on individual schools for 2022-23, we have used data from the 2021-22 APT for LA maintained schools, and for academies and

¹ Set out in the policy document [2022-23 NFF](#)

² Three data items are not taken from the APT: FSM6 and mobility data are calculated directly from the October 2020 school census, and sparsity data is calculated according to a new methodology. See the relevant sections of this document for more details.

free schools we have used data from their general annual grant statement for the academic year 2021/22. These two data sources do not reflect any changes after March 2021. More details are given in Chapter 5.

- 1.8. 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.
- 1.9. Schools' actual allocations for 2022-23 will be 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 2021-22 APT for maintained schools and from the 2021/22 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, which 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: this covers funding through the PFI, split sites, rates and exceptional circumstances factors.
 - c. Growth factor funding: this is allocated at LA level to support LAs to manage an increase in pupil numbers in 2022-23 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 2021-22 APT for both schools and academies so that the funding is all on a consistent basis. This means the notional 2022-23 allocations for academies which contribute towards the 2022-23 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 2022-23 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. These notional allocations use pupil and funding data from 2021/22 GAG statements for academies and free schools, rather than data from the APT.

Core NFF funding baseline

- 2.3. Each school's NFF funding floor is calculated based on its notional 2021-22 NFF funding.
- 2.4. For schools which do not have a 2021-22 NFF baseline (for instance, schools which have opened recently), we have created a theoretical baseline based on the provisional 2021-22 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 2021-22 NFF.

Baseline core funding

- 2.6. For each school, the baseline core funding is the total notional 2021-22 NFF allocation, excluding premises and growth³.

³ The notional 2021-22 NFF allocation includes the teachers' pay and pension grants. For more detail, see the [2021-22 technical note](#).

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 2022-23 funding floor. To derive this, we subtract the 2022-23 NFF school-led funding (with area cost adjustment) from the baseline core funding, multiply the result by the proportion of 2021-22 for which the school will be open, divide by the proportion of the year for which the school was funded in the 2021-22 NFF⁴, 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 2021-22 NFF. The individual funding factors that make up the total premises factor are:
- Private finance initiative (PFI)
 - Split sites
 - Rates
 - Exceptional circumstances.

⁴ That is, the proportion of 2020-21 for which the school was open

Chapter 3: Core NFF funding calculation for LA allocations

- 3.1. In this chapter, we set out each component of the 2022-23 schools NFF that is calculated at a school level.
- 3.2. For calculating LA allocations, we use data from the 2021-22 APT for both maintained schools and academies.
- 3.3. For calculating the notional impact on individual schools, we use 2021-22 APT data for maintained schools and 2021/22 GAG data for academies and free schools,⁵ to reflect more closely the actual funding that schools receive. The calculation of the notional impact on individual schools will be described in Chapter 5.
- 3.4. Core NFF funding covers funding through the NFF that is calculated at a school level. Through the core NFF funding calculation we derive the NFF primary and secondary per-pupil units of funding for 2022-23, for each LA.
- 3.5. 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 formula.
- 3.6. APT data is based on October 2020 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.
- 3.7. 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 2% increase compared to their 2021-22 baseline pupil-led funding per pupil. Notional funding for schools which will be open for part of the financial year to 31 March 2021 is scaled down pro rata.

⁵ In cases where a maintained school becomes an academy after 31 March 2021, we use APT data, as GAG data is not available in time.

Basic per-pupil funding

Figure 1: Basic per-pupil funding factors

Factor	Unit value	Eligibility
Primary basic per-pupil funding	£3,217	Each pupil on the school roll in year groups from reception to year 6 inclusive. The primary APT-adjusted pupil count is based on data from the 2021-22 APT and excludes reception uplift.
Key stage 3 (KS3) basic per-pupil funding	£4,536	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 2021-22 APT.
Key stage 4 (KS4) basic per-pupil funding	£5,112	Each pupil on the school roll in year 10 and year 11. The KS4 APT-adjusted pupil count is based on data from the 2021-22 APT.

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

- 3.8. Basic per-pupil funding factors have been increased by 3% since the 2021-22 NFF.
- 3.9. The total NFF funding through the basic per-pupil factor is equal to:
- Primary basic per-pupil unit value multiplied by the primary APT-adjusted pupil count, plus
 - KS3 basic per-pupil unit value multiplied by the KS3 APT-adjusted pupil count, plus
 - KS4 basic per-pupil unit value multiplied by the KS4 APT-adjusted pupil count.

Additional needs funding

- 3.10. The additional needs factors allocate funding to schools based on 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.

- 3.11. 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:
- School A has 400 pupils but only 380 have valid data returns for free school meal (FSM) eligibility.
 - 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).
 - 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 $400 \times 25\% = 100$ eligible pupils.
- 3.12. 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	£470	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 (reception to year 6 inclusive) from the 2021-22 APT and multiplying by the primary APT-adjusted pupil count.
Secondary FSM	£470	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 (years 7 to 11 inclusive) from the 2021-22 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	£590	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) ⁶ . We calculate the total number of eligible pupils by taking the proportion of FSM6-eligible primary pupils calculated from the October 2020 census ⁷ and multiplying by the primary APT-adjusted pupil count.
Secondary FSM6	£865	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 (this includes all secondary pupils who are currently eligible for FSM). We calculate the total number of eligible pupils by taking the proportion of FSM6-eligible secondary pupils calculated from the October 2020 census 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)⁸

- 3.13. The IDACI element of the deprivation factor is based on the IDACI dataset for 2019, 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. LSOAs are ranked by score, from the most deprived LSOA, with the highest score, to the least deprived LSOA.

⁶ For earlier NFFs, FSM6 was calculated on the basis of the January school census. It is now calculated on the basis of the October census. This change brings it into line with the other funding factors.

⁷ For schools that open after the date of the October 2020 census, we use FSM6 data from the APT.

⁸ Ministry of Housing, Communities and Local Government, [English indices of deprivation 2019](#), September 2019

- 3.14. For school funding purposes, the NFF uses IDACI ranks to group LSOAs into seven bands of decreasing deprivation; for example, Band A comprises the most deprived 2.5% of LSOAs. The six bands that attract funding are shown in Figure 3.
- 3.15. We match IDACI data to pupils' home postcode data recorded in the October 2020 school census in order to find their LSOA, and hence the IDACI band for each pupil in a school. The amount of IDACI funding received by a school depends on the IDACI band of each pupil. The funding for each band is set out in Figure 4.

Figure 3: NFF IDACI bands

Factor	Ranks	Band
Pupils in the most deprived 2.5% of LSOAs	1 to 821	A
Pupils in the next 5% most deprived LSOAs	822 to 2463	B
Pupils in the next 5% most deprived LSOAs	2464 to 4105	C
Pupils in the next 5% most deprived LSOAs	4106 to 5747	D
Pupils in the next 10% most deprived LSOAs	5748 to 9032	E
Pupils in the next 10% most deprived LSOAs	9033 to 12316	F

Figure 3: This table shows the NFF IDACI bands using pupil-level data from the 2021-22 APT. Band G does not attract funding.

Figure 4: IDACI funding factors

Factor	Unit value	Eligibility
Primary IDACI band A	£640	We calculate the total number of eligible pupils for funding through each IDACI band by taking the proportion of pupils in the relevant IDACI band and multiplying it by the primary APT-adjusted pupil count.
Primary IDACI band B	£490	
Primary IDACI band C	£460	
Primary IDACI band D	£420	
Primary IDACI band E	£270	
Primary IDACI band F	£220	
Secondary IDACI band A	£890	We calculate the total number of eligible pupils for funding through each IDACI band by taking the proportion of pupils in the relevant IDACI band and multiplying it by the secondary APT-adjusted pupil count.
Secondary IDACI band B	£700	
Secondary IDACI band C	£650	
Secondary IDACI band D	£595	
Secondary IDACI band E	£425	
Secondary IDACI band F	£320	

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)

- 3.16. 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. As with the other factors, we use data for LPA as recorded in the 2021-22 APT.
- 3.17. The cancellation of assessments due to the COVID-19 pandemic means that attainment data is not available for those who would have taken the tests in 2020. The same proportion of these pupils is assumed to have LPA as those who took the tests in 2019.
- 3.18. In the APT, the LPA pupil numbers are weighted to reflect the fact that the proportion of pupils reaching the expected standard in key stage 2 tests has changed over time.

The weightings are

- For pupils in year 7 and 8 in October 2020: 0.64527
- For pupils in year 9 in October 2020: 0.63586
- For pupils in year 10 in October 2020: 0.58045
- For pupils in year 11 in October 2020: 0.48019

Figure 5: LPA funding factors

Factor	Unit value	Eligibility
Primary LPA	£1,130	<p>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 are assessed at the end of the Reception year.</p> <p>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.</p>
Secondary LPA	£1,710	<p>Schools receive funding for all secondary pupils who did not achieve the expected level at KS2 in one or more of reading, writing and mathematics through this factor.</p> <p>We calculate the total number of eligible pupils by:</p> <p>Taking the proportion of LPA-eligible pupils in each secondary year group from the 2021-22 APT,</p> <p>Applying to each year group the relevant weighting set out in Paragraph 3.18.</p> <p>Multiplying by the APT-adjusted pupil count for the relevant year group</p> <p>And summing the results for each year group.</p>

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)

3.19. 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	£565	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 2021-22 APT and multiplying by the primary APT-adjusted pupil count.
Secondary EAL	£1,530	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 2021-22 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

- 3.20. 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 typical⁹. 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 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.
- 3.21. Due to COVID-19, there was no school census in May 2020, so it was not possible to detect a pupil's arrival at a school in the usual way. Instead, where a pupil who was not at the school in the January census has an entry date recorded in the October 2020 census of between the date of the January 2020 census and the date of the (cancelled) May 2020 census, that pupil attracts mobility funding (as long as the school itself was open before the January 2020 census).

⁹ The school census record of an individual pupil is established by tracing the pupil's unique reference number back through earlier termly censuses.

3.22. 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 in year 11 in 2020/21, had an entry date in April 2020, so they are classified as mobile under the special rule set out in Paragraph 3.21 above. Pupil 3's first census is also January but as the pupil was in reception at the time, they are not mobile. Pupil 4's first census is January 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

School census	Pupil 1	Pupil 2	Pupil 3	Pupil 4	Pupil 5
October 2017					Y5
January 2018				Y1	Y5
May 2018				Y1	Y5
October 2018				Y2	Y6
January 2019			YR	Y2	Y6
May 2019			YR	Y2	Y6
October 2019			Y1	Y3	Y7
January 2020			Y1	Y3	Y7
No May 2020 census: special rules		Y10	Y1	Y3	Y7
October 2020	Y7	Y11	Y2	Y4	Y8

Figure 7: This table shows the census appearances for 5 pupils at one school (or its predecessors) to support the explanation of how the mobility factor is calculated in Paragraph 3.20.

Figure 8: Mobility - funding factors for pupils above the threshold

Factor	Unit value	Eligibility
Primary Mobility	£925	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 (after applying the threshold) and multiplying by the primary APT-adjusted pupil count.
Secondary Mobility	£1,330	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 (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

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

Figure 9: Lump sum funding factor

Factor	Unit value	Eligibility
Lump sum	£121,300	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

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

3.25. Remoteness is defined by a school's sparsity distance, which is now defined in terms of road distance (described in Annex C) instead of straight-line distance¹⁰. To calculate the sparsity distance, we take all the pupils for whom it is the nearest

¹⁰ Road distance data is not available for schools which opened after October 2020; in these cases we use straight-line sparsity distances from the APT.

compatible school¹¹ and find the average road distance from these pupils' home postcode to their second nearest compatible school.

- 3.26. The amount allocated depends on both average year group size and sparsity distance. The range of factor values is shown below.

Figure 10: Sparsity factor values

Factor	Unit value
Sparsity funding for primary schools	£0 - £55,000
Sparsity funding for secondary, middle and all-through schools	£0 - £80,000

Figure 10: This table shows the sparsity factor unit values.

- 3.27. A school is eligible for sparsity funding if:
- The sparsity distance is above the tapered distance threshold, and
 - 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 tapered year group threshold¹².

Figure 11: Sparsity distance thresholds

School phase	Main distance threshold	Tapered distance threshold
Primary, middle, and all-through schools	2 miles	1.6 miles
Secondary schools	3 miles	2.4 miles

Figure 11: This table shows the distance thresholds.

¹¹ For the purposes of this factor, a compatible school means one which a pupil of the relevant age and gender could attend. Selective grammar schools are excluded when identifying the second nearest compatible school, but faith schools are included.

¹² In the rare case that there is no year group data for a school on the 2021-22 APT, we assume that the school is not eligible for sparsity funding

Figure 12: Sparsity year group thresholds

Phase	Main year group threshold (average number of pupils)	Tapered year group threshold (average number of pupils)
Primary	10.70	21.40
Secondary	60.00	120.00
Middle	34.60	69.20
All-through	31.25	62.50

Figure 12: This table shows the sparsity year group thresholds.

- 3.28. The distance taper is new for the 2022-23 NFF. The year group size taper is unchanged from 2021-22, but the terminology for the thresholds has been changed to bring it into line with the new distance taper.
- 3.29. Schools which are both equal to or above the main distance threshold and equal to or below the main year group threshold receive the maximum sparsity unit values for their phase. Where a school is between either or both the main and tapered thresholds, a sparsity weighting applies.

Sparsity weighting

- 3.30. For each school that is eligible for sparsity funding, we calculate a sparsity weighting, which sets the proportion of the maximum sparsity unit value each sparse school is allocated. The sparsity weighting is calculated in two stages.
 - a. First, we apply a year group size weighting. This tapers the proportion of the sparsity unit value if the school's average year group size is between the tapered and main year group thresholds. Tapering depends on how close the average year group size is to the main year group threshold.
 - b. Then we apply a distance weighting. This tapers the proportion of the sparsity unit value according to how close to the main distance threshold their sparsity distance is.
- 3.31. The year group size weighting for schools with an average year group size of less than or equal to the main year group threshold is 100%. These sparse schools

receive the maximum sparsity unit value, if their sparsity distance is greater than or equal to the main distance threshold.

- 3.32. The year group size weighting for sparse schools with an average year group size that is between the tapered and the main year group thresholds is calculated as follows:

$$S = 1 - \frac{A - T_M}{T_T}, \text{ where } T_M < A < T_T$$

where

S is the year group size weighting

A is the average year group size of the school

T_M is the main year group threshold

T_T is the tapered year group threshold

- 3.33. This means that a sparse school with an average year group size that is halfway between the tapered threshold and the main threshold, and with a sparsity distance greater than or equal to the main distance threshold, attracts sparsity funding of half the maximum. The year group size weighting for primary, middle, secondary, and all-through schools is set out in Figure 13.

Figure 13: Sparsity year group size weighting

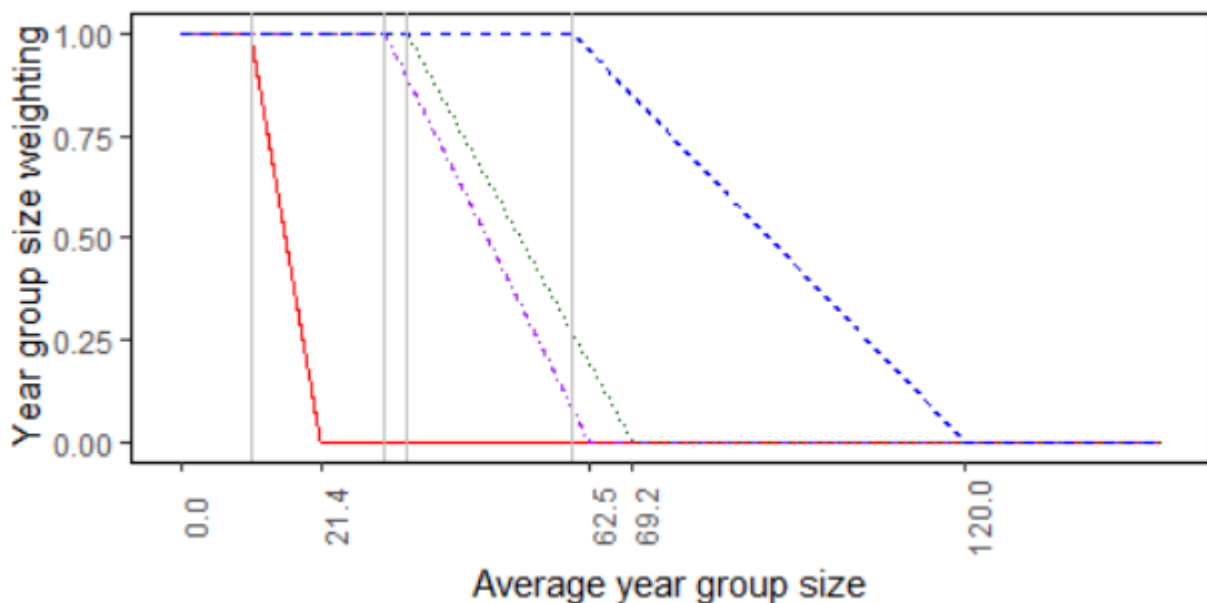


Figure 13: This figure shows the year group size weighting as a function of average year group size, for primary schools (solid red line), all-through schools (dot-dashed purple line), middle schools (dotted green line) and secondary schools (dashed blue line).

- 3.34. The distance weighting for schools with a distance greater than or equal to the main distance threshold is 100%. These sparse schools therefore receive sparsity funding equal to the maximum sparsity unit value multiplied by the calculated year-group weighting.
- 3.35. The distance weighting for sparse schools with sparsity distances between the main and tapered thresholds is calculated as follows:

$$W = 1 - \frac{D_M - d}{D_M - D_T}, \quad \text{where } D_T < d < D_M$$

where

W is the distance weighting

D_M is the main sparsity distance threshold

D_T is the tapered sparsity distance threshold

d is the school's sparsity distance

- 3.36. The sparsity distance weighting is shown in Figure 14.

Figure 14: Sparsity distance weighting

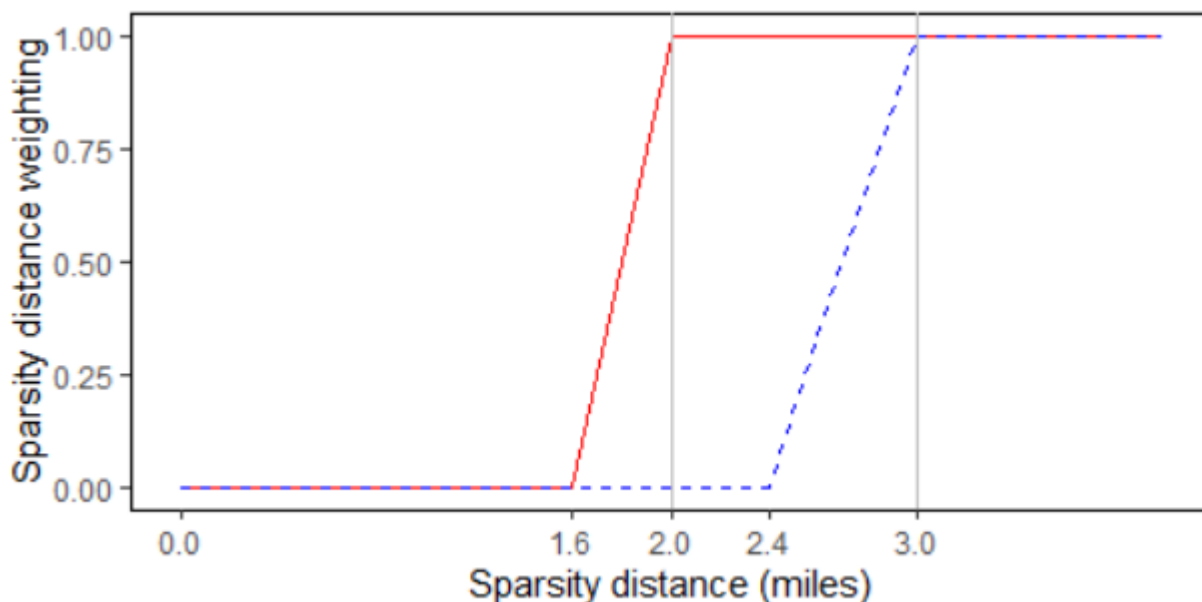


Figure 14: This figure shows the sparsity distance weighting for secondary schools (dashed blue line) and for all other schools (solid red line)

- 3.37. The final sparsity funding amount allocated is the maximum unit value for the school's phase (see Figure 10), multiplied by the year group weighting (as

calculated in Paragraph 3.32) and multiplied by the distance weighting (as calculated in Paragraph 3.35).

- 3.38. This means that a school whose sparsity distance is halfway between the tapered distance threshold and the main distance threshold would receive half as much funding as a school of the same phase and average year group size, with a sparsity distance greater than the main threshold.

Figure 15 below shows a worked example of the sparsity tapers.

Figure 15: Calculation of sparsity weighting

Calculation step	Description	Example
1) Calculate the average year group size	Divide the APT-adjusted pupil count by the number of year groups.	Primary School X has an APT-adjusted pupil count of 112. It has 7 year groups. The average year group size is $112 \div 7$ $= 16.0$
2) Establish the year group size thresholds, and decide whether a weighting is applicable	Year group size thresholds are set out in Figure 12. If the average year group size is between the main and tapered thresholds, calculate a weighting.	The main threshold for primary schools is 10.7 pupils and the tapered threshold is 21.4 pupils. School X is between the two, so we apply a weighting.
3) Calculate the year group size weighting	Apply the equation in Paragraph 3.32	The year group size weighting is $1 - ((16.0 - 10.7) / 10.7)$ $= 0.504673$
4) Establish the distance thresholds, and decide whether a weighting is applicable	Distance thresholds are set out in Figure 11. If the sparsity distance is between the main and tapered thresholds, calculate a weighting.	School X's sparsity distance is 1.9 miles. The main distance threshold for primary schools is 2 miles and the tapered threshold is 1.6 miles. School X is between the two, so we apply a weighting.
5) Calculate the distance weighting	Apply the equation in Paragraph 3.35	The distance weighting is $1 - (2 - 1.9) / (2 - 1.6)$ $= 0.75$
6) Calculate the sparsity funding	Multiply the maximum sparsity factor value for the phase of the school (as shown in Figure 10) by the distance and year group size weightings	The maximum sparsity funding for a primary school is £55,000. School X's sparsity funding is $£55,000 \times 0.504673 \times 0.75$ $= £20,818$

Figure 15: This table shows how the sparsity weighting is calculated

Area cost adjustment (ACA)

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

3.41. 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.

3.42. The SB NFF ACA is calculated for each district¹³ by:

- a. Weighting the relevant teacher-specific cost adjustment in line with the national proportion of spend on teaching staff in mainstream schools (54.2%).
- b. Weighting the relevant GLM labour cost adjustment in line with the national proportion of spend on non-teaching staff in mainstream schools (27.7%).

3.43. 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

3.44. 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

3.45. 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.

¹³ Schools which are geographically situated outside the area of the local authority with which they are associated for funding purposes are assigned the ACA of the authority with which they are associated, not the ACA of their geographical location. Buckinghamshire is now a unitary authority; different ACAs apply to the Fringe and non-Fringe parts of the LA, with boundaries defined in terms of the former districts.

Applying the minimum per pupil funding factor

- 3.46. 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 2021-22 school baselines. The funding floor is set out in Paragraphs 3.48 onwards.
- 3.47. The 2022-23 minimum per pupil funding levels for different year groups are set out in Figure 16 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 contain pupils in 2021-22 are counted in this calculation.

Figure 16: Minimum per pupil funding levels

Year groups	2022-23 minimum per pupil funding level
Primary	£4,265
KS3	£5,321
KS4	£5,831

Figure 16: This table shows the minimum per pupil funding levels for each phase

- 3.48. The minimum per pupil for each school is the sum of
- £4,265 multiplied by the number of primary year groups
 - + £5,321 multiplied by the number of KS3 year groups
 - + £5,831 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 £4,265 and for a secondary school with year groups 7 to 11, the minimum per pupil is £5,525.

- 3.49. 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 17 below.

Figure 17: Calculation of the minimum per pupil

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 3.44) 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 2021-22. School B's NFF pupil-led funding (before the minimum per pupil factor and funding floor) is £5,000 per pupil.
2) NFF school-led funding	We also need to derive the school's school-led funding – see Paragraph 3.45 (as if the school were open for the full year).	The NFF school-led funding for school B is £121,300. It attracts a lump sum like every school but is not eligible for sparsity funding.
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 a 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: £5,000 multiplied by 1,200 (£6,000,000), plus £121,300 (£6,121,300) divided by 1,200, which equals £5,101 ¹⁴ .
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 3.48.	School B is a secondary school so the minimum per pupil funding level is $(£5,321 \times 3 + £5,831 \times 2) / (3 + 2) = £5,525$.
6) Does the school receive funding through the minimum per pupil funding factor?	If a school's NFF per-pupil funding (before minimum per pupil and funding floor) is less than the school's individual minimum per pupil funding level, then the school receives extra funding through the minimum per pupil funding factor.	School B's per-pupil NFF funding (before minimum per pupil factor and funding floor) is £5,101 (step 4). This is less than school B's individual minimum per pupil funding level, £5,525 (step 5). Therefore, the school receives a funding uplift through the

¹⁴ For simplicity, numbers are rounded to the nearest pound in this example, but in the NFF itself we work with unrounded numbers.

Calculation step	Description	Example
	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.	minimum per pupil funding factor. This is equal to £424 per pupil (£5,525 minus £5,101).
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 £5,101 plus £424 multiplied by 100%, i.e. the minimum, £5,525.

Figure 17: This table shows how the minimum per pupil funding factor is calculated, and how we determine whether any additional funding is required

Applying the funding floor

- 3.50. Schools' baselines for the funding floor are from the notional 2021-22 core NFF allocations. For schools that do not have a 2021-22 baseline, Annex B describes how a baseline is derived. The NFF's funding floor ensures all schools' NFF allocations in 2022-23 see a minimum gain per pupil of 2% above their 2021-22 baseline pupil-led funding.
- 3.51. To calculate whether a school attracts additional funding as a result of the floor, we look at the difference between the school's funding floor baseline (per pupil) and its 2022-23 NFF pupil-led funding after the minimum per pupil funding levels have been applied.
- 3.52. Each school's funding floor baseline (per pupil) is calculated by taking the total of the NFF baselines as described in Chapter 2, and subtracting the 2022-23 NFF school-led funding. This parallels the established minimum funding guarantee (MFG) methodology used in LAs' local funding formulae. Again, we use 2021-22 APT data for all schools in our calculation of the funding floor for use in LA allocations. Figure 18 sets out the funding floor calculation and a worked example.

Figure 18: Calculation of the NFF funding floor

Calculation step	Description	Example
1) Total baseline funding	We start with the total baseline from 2021-22 NFF. This is adjusted for the proportion of 2021-22 that the school is open.	School A's baseline core funding is £750,000.
2) NFF school-led unit of funding	The baseline for the funding floor calculation excludes 2022-23 NFF school-led funding. We take account of the proportion of the financial year the school is open in 2021-22.	School A is open for 100% of the financial year and has no sparsity funding, so its 2022-23 NFF school-led funding is the lump sum $£121,300 \times 100\% = £121,300$.
3) Baseline pupil count	The funding floor calculation is on a per-pupil basis, based on the school's pupil count in the 2021-22 NFF.	School A's baseline pupil count is 150.
4) Funding floor baseline	The baseline for the funding floor is calculated by: Taking the total baseline core funding (step 1), subtracting the 2022-23 NFF school-led unit of funding (step 2), and dividing the result by the baseline pupil count (step 3).	School A's funding floor baseline is £4,191 ¹⁵ . This is £750,000 minus £121,300 (£628,700) divided by 150.
5) Minimum gain in 2022-23	The minimum gain per pupil for any school by 2022-23 is a 2% increase on their funding floor baseline. To check that each school will see at least a 2% gain in 2022-23 we uplift the baseline for the funding floor by 2%.	School A's NFF pupil-led funding needs to be at least 2% greater than the funding floor baseline – it needs to be at least $£4,191 + 2\% = £4,275$.
6) NFF 2022-23 pupil-led funding (after the minimum per pupil funding but before the funding floor)	We also need to calculate the 2022-23 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);	School A's 2022-23 funding per pupil before minimum per pupil and funding floor is £4,270. The school is not eligible for minimum per pupil funding. The pupil count for the 2022-23 NFF is 160. The school-led funding is £121,300. School A's 2022-23 NFF pupil-led funding per pupil before funding

¹⁵ For simplicity, numbers are rounded to the nearest pound in this example, but in the NFF itself we work with unrounded numbers.

Calculation step	Description	Example
	add the per-pupil funding through the minimum per pupil funding factor; and multiply the result by the pupil count for the 2022-23 NFF. We then subtract the 2022-23 school-led funding and divide the result by the pupil count for the 2022-23 NFF. We multiply the result by the proportion of the financial year for which the school is open.	floor is $(£4,270 + £0) \times 160 - £121,300$ divided by 160, i.e. £3,512.
7) How much funding does the school receive through the NFF funding floor factor?	We check that each school's NFF pupil-led funding (after minimum per pupil funding but before the funding floor) (step 6) delivers the minimum gain in 2022-23 (step 5). If the NFF pupil-led unit of funding is not at least 2% greater than the funding floor baseline, then the school receives funding through the funding floor factor.	School A's NFF pupil-led funding (after minimum per pupil funding but before the funding floor) of £3,512 is less than a 2% uplift to the funding floor baseline ($£4,275 - \text{step 5}$), so school A gets $£4,275 - £3,512 = £763$ 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 £4,275 per pupil, which is £3,512 plus £763.

Figure 18: Calculation of the NFF funding floor baseline for use in LA allocations

Core schools NFF funding – splitting between primary and secondary

3.53. To calculate each LA's primary and secondary per-pupil units of funding for the 2022-23 schools block, we need to split core NFF funding into two categories: primary funding and secondary funding. For most schools, which only have pupils in one phase (i.e. primary schools and secondary schools), 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.

- 3.54. 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.
- 3.55. 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.
- 3.56. 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 how we have calculated the provisional funding allocations to LAs for 2022-23, including how we have calculated their actual primary and secondary units of funding. Specifically, this chapter describes:

- The calculation of primary and secondary core NFF funding;
- The calculation of the primary and secondary units of funding for 2022-23;
- The calculation of premises funding;
- The calculation of funding through the growth factor; and
- How the primary and secondary units of funding and the premises funding are combined to derive LAs' provisional 2022-23 allocations.

Core NFF funding – provisional funding in 2022-23

4.2. Figure 19 sets out the calculation of the total 2022-23 provisional NFF primary and secondary core NFF funding, before adjusting for duplicates.

Figure 19: Total provision core NFF funding

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 £105.3m.
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.

Figure 19: Total provisional core 2022-23 NFF funding (before adjusting for duplicates)

2022-23 primary and secondary units of funding

4.3. For each LA we calculate a primary unit of funding (PUF) and secondary unit of funding (SUF) for 2022-23. These are final, actual units of funding for 2022-23, and will not be updated at any later point. These actual 2022-23 NFF primary and

secondary units of funding will be used to allocate schools block funding to LAs in December 2021. 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 2022-23.

- 4.4. Figure 20 sets out the calculation of the 2022-23 NFF primary and secondary units of funding.

Figure 20: 2022-23 LA level NFF primary and secondary units of funding

Calculation step	Description	Example
1) Total provisional primary 2022-23 core NFF funding	The total primary core NFF funding in the 2022-23 NFF, based on 2021-22 data. Figure 19, step 1.	LA 1's total primary 2022-23 core NFF funding is £105.3m.
2) Primary pupil count	The primary pupil count is based on the 2021-22 adjusted APT pupil count for all schools open in financial year 2021-22. 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 2021-22 primary adjusted APT pupil count (based on October 2020 census) and multiply it by the proportion of the financial year 2021-22 the school is open Then we aggregate these amounts to LA level and subtract the total number of census duplicate pupils for the LA that were not apportioned in the 2021-22 DSG allocation.	LA 1's total primary pupil count is 25,000. LA 1 has 2 duplicate primary pupils. After adjusting for duplicate pupils, the total primary pupil count is 24,998.
3) 2022-23 NFF PUF	To calculate the 2022-23 LA level NFF PUF we divide the total primary 2022-23 core NFF funding (step 1) by the LA's primary pupil count after adjusting for duplicates (step 2).	LA 1's 2022-23 NFF PUF is equal to £105.3m divided by 24,998 primary pupils, £4,212.
4) Total provisional secondary 2022-23 core NFF funding	The total secondary core NFF funding in the 2022-23 NFF, based on 2021-22 data. Figure 19, step 2.	LA 1's total secondary 2022-23 core NFF funding is £132.5m.

Calculation step	Description	Example
5) Secondary pupil count	<p>The secondary pupil count is based on the 2021-22 adjusted APT pupil count for all schools open in financial year 2021-22. Each school's contribution to this pupil count takes account of the proportion of the financial year for which the school is open.</p> <p>For each school in the LA we take: The 2021-22 secondary adjusted APT pupil count (based on October 2020 census); and Multiply it by the proportion of the financial year 2021-22 the school is open</p> <p>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 2021-22 DSG allocation.</p>	<p>LA 1's total secondary pupil count is 23,000. LA 1 has 1 duplicate secondary pupil. After adjusting for the duplicate pupil, the total secondary pupil count is 22,999.</p>
6) 2022-23 NFF SUF	<p>To calculate the 2022-23 LA level NFF SUF we divide the total secondary 2022-23 core NFF funding (step 4) by the secondary pupil count (step 5).</p>	<p>LA 1's 2022-23 NFF SUF is equal to £132.5m divided by 22,999 secondary pupils, £5,761.</p>

Figure 20: 2022-23 LA level NFF primary and secondary units of funding

2022-23 actual premises funding

- 4.5. Our approach for allocating premises funding at LA level under the NFF for 2022-23 is to use the levels of funding given on LAs' 2021-22 APTs, in respect of schools eligible for funding under the 2022-23 NFF¹⁶. For the PFI factor, we have uprated all positive amounts on the 2021-22 APTs in line with inflation, using RPIX data (retail prices index for all items excluding mortgage interest) for the year to April 2021 that has been published by the Office for National Statistics. For each LA we:
- a. Take the 2021-22 PFI premises factor baseline as given on the 2021-22 APT and uplift it in line with RPIX growth from April 2020 to April 2021 (3.17%)¹⁷. The exception to this is if the PFI figure on the 2021-22 APT for a school is negative. In this case it is rolled over and not uplifted by RPIX.

¹⁶ Certain PFI allocations are subject to adjustment in the light of negotiation between the Department and LAs

¹⁷ Source: [Office for National Statistics RPIX](#)

- b. Take the 2021-22 APT spend for split sites and rates

Take the 2021-22 exceptional circumstances spend.

- c. Add the totals from these three steps together to give the 2022-23 NFF actual funding through the premises factors.

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

2022-23 funding through the growth factor

- 4.6. In the 2022-23 DSG settlement, planned for December 2021, we will allocate funding through the growth factor at LA Level, based on the observed differences between the primary and secondary number on roll in each LA between the October 2020 and October 2021 school censuses. LAs which received transitional protection last year will continue to receive protection, based on the 2021-22 DSG growth allocation. We have not published provisional growth allocations because they are determined by October 2021 pupil numbers, so it would not provide meaningful information at this stage. See Annex D for further details about the methodology to be used for actual allocations in December.

Total provisional funding in 2022-23

- 4.7. We have published the total provisional funding (excluding the growth factor) that each LA would receive under the NFF (2022-23) based on 2021-22 data. Figure 21 sets out the calculation of the total provisional funding in 2022-23.
- 4.8. For this calculation, we have treated unresolved duplicate pupil numbers¹⁸ 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 2021-22 DSG schools block counts with the unresolved duplicates apportioned.¹⁹ The PUFs and SUFs have been adjusted to account for this change (see Figure 20, steps 2 and 5).

¹⁸ These are different pupils with the same “unique” pupil reference number. In the calculations up to this point, each duplicate pupil is counted as one.

¹⁹ This is for illustration. The actual 2022-23 allocation will use the 2022-23 DSG schools block primary pupil count

Figure 21: Total provisional funding (excluding the growth factor) in 2022-23

Calculation step	Description	Example
1) Total primary 2022-23 core NFF funding	The provisional total funding through primary core schools factors. PUF (Figure 20 step 3) multiplied by 2021-22 DSG schools block primary pupil count.	LA 1's total primary 2022-23 core NFF funding is £4,212 multiplied by the DSG schools block primary pupil count (24,800) £104.5m.
2) Total secondary 2022-23 core NFF funding	The provisional total funding through secondary core schools factors. SUF (Figure 20 step 6) multiplied by 2021-22 DSG schools block secondary pupil count.	LA 1's total secondary 2022-23 core NFF funding is £5,761 multiplied by the DSG schools block secondary pupil count (22,750) £131.1m.
3) 2022-23 provisional funding through the core schools formula	This is: The provisional 2022-23 primary core NFF funding (step 1) Plus the provisional 2022-23 secondary core NFF funding (step 2)	LA 1's total provisional 2022-23 core NFF funding is £235.5m.
4) 2022-23 funding through premises	This is the total funding by LAs through the premises factor in 2021-22. This will be used to calculate final funding allocations to LAs for 2022-23 in December 2021 (as described in Paragraph 4.5).	LA 1's total funding through the premises factor is £10m.
5) Total provisional funding (excluding growth) in 2022-23	The total provisional funding (excluding growth) in 2022-23 is equal to: The 2022-23 provisional funding through the core schools formula (step 3) Plus the 2022-23 funding through premises (step 4).	The total provisional funding (excluding growth) in 2022-23 for LA 1 is £245.5m

Figure 21: Total provisional funding (excluding the growth factor) in 2022-23

What we have published at LA level

- 4.9. As part of the 2022-23 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 2021-22 baseline²⁰
- b. The actual 2022-23 units of funding for each LA that will be used to calculate schools block allocations in December 2021
- c. The provisional impact of the 2022-23 NFF.

²⁰ The allocations in the 2021-22 NFF publication have been recalculated to reflect the split of Northamptonshire on 1 April 2021 into North Northamptonshire and West Northamptonshire

Chapter 5: Calculating school-level notional allocations

- 5.1. Chapters 2 and 3 set out the school-level calculations that feed into 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 2022-23. This is because each LA will still be responsible for setting the individual funding formulae for 2022-23 for their area, and because LAs' allocations to schools for 2022-23 will be based on data from the October 2021 school census, while the notional NFF allocations for 2022-23 are based on data from the October 2020 census.
- 5.3. To calculate the school-level notional figures we use 2021-22 APT data for LA maintained schools and 2021/22 GAG data for academies (as at 31 March 2021) 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.

Using APT or GAG data in the calculations

- 5.4. For the purpose of illustrating the impact of the 2022-23 NFF on individual schools, wherever 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 2021-22 APT or 2021/22 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 2022-23 or 2022/23 allocations.

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

- 5.8. The calculation is described 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 APT or 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). Academies are assumed to be open for the full academic year.²¹

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.

²¹ The rationale is that academies which open after the start of the academic year are excluded from the dataset, and it is not known whether any academies will close before the end of the academic year.

- a. The proportion of the year for which a school is open is based on GAG data where applicable (refers to academic year). Academies are assumed to be open for the full academic year²².

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 number of primary-age, KS3 and KS4 year groups is based on GAG data where applicable.
 - c. 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 2022-23 premises funding amounts at school level are calculated as:
 - a. The 2021-22 PFI baseline uplifted in line with the RPIX growth from April 2020 to April 2021;²³ plus
 - b. The 2021-22 baseline amounts for the other premises factors.

²² The rationale is that academies which open after the start of the academic year are excluded from the dataset, and it is not known whether any academies will close before the end of the academic year.

²³ The exception to this is if the PFI figure on the 2021-22 APT for a school is negative. In this case it is rolled over and not uplifted by RPIX.

What have we published at a school level?

- 5.13 Our school-level impact table sets out figures for each school. Figure 22 sets out the definition of each output.

Figure 22: Published output, school level illustrations

Published output	Description
1) Funding baseline	This is the 2021-22 NFF funding allocation, based on APT data for maintained schools and GAG data for academies and free schools.
2) Notional total funding in 2022-23 for maintained schools or 2022/23 for academies	<p>This is the total funding under the 2022-23 NFF.</p> <p>For LA maintained schools: This is based on 2021-22 APT data and the 2022-23 NFF. The total notional 2022-23 funding is equal to: The 2022-23 NFF pupil-led unit of funding multiplied by the 2021-22 APT-adjusted pupil count plus the NFF school-led unit of funding plus the notional 2022-23 premises funding.</p> <p>For academies and free schools: The notional total funding is based on 2021/22 GAG data and on the 2022-23 NFF. The total notional 2022/23 funding is equal to: The 2022-23 NFF pupil-led unit of funding multiplied by the 2021/22 GAG adjusted pupil count plus the NFF school-led unit of funding plus the notional 2022-23 premises funding.</p>

Figure 22: Published output, school level illustrations

Annex A: Area cost adjustment (ACA)

- A.1. The teacher pay element of the ACA is derived from the autumn 2019 School Workforce Census, which is the latest available at the time of publication of this NFF.
- A.2. 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.3. 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 is the variations between the regional pay bands.
- A.4. 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.5. 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 2019 if November 2019 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.6. 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.7. 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.8. 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.9. 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.10. 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 Government²⁴.
- A.11. 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^{25 26}.
- A.12. The national teacher proportion is the total expenditure on teachers divided by total expenditure on teachers, non-teaching staff and non-pay combined, 54.2%. 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, 27.8%.

Figure 23: Schools block ACA for each LA

Local authority name	Districts	Area cost adjustment
Barking and Dagenham	Barking and Dagenham	1.13216
Barnet	Barnet	1.10042
Barnsley	Barnsley	1.00000
Bath and North East Somerset	Bath and North East Somerset	1.01462
Bedford	Bedford	1.01568
Bexley	Bexley	1.08410
Birmingham	Birmingham	1.00338
Blackburn with Darwen	Blackburn with Darwen	1.00000
Blackpool	Blackpool	1.00000
Bolton	Bolton	1.00546
Bournemouth, Christchurch and Poole	Bournemouth, Christchurch and Poole	1.00000
Bracknell Forest	Bracknell Forest	1.05740
Bradford	Bradford	1.00016
Brent	Brent	1.14848
Brighton and Hove	Brighton and Hove	1.00169
Bristol	Bristol	1.01462
Bromley	Bromley	1.08410

²⁴ The Ministry of Housing, Communities and Local Government has not updated the general labour market data since 2013-14

²⁵ The data source for expenditure in maintained schools is [LA and school expenditure 2019-20](#) and for expenditure in academies is [Academies' Accounting Returns 2019/20](#)

²⁶ 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
Buckinghamshire Fringe	Areas covered by the former Chiltern and South Bucks districts	1.04714
Buckinghamshire non-Fringe	Areas covered by the former Aylesbury Vale and Wycombe districts	1.02869
Bury	Bury	1.00546
Calderdale	Calderdale	1.00016
Cambridgeshire	All	1.01284
Camden	Camden	1.18623
Central Bedfordshire	Central Bedfordshire	1.01568
Cheshire East	Cheshire East	1.00363
Cheshire West and Chester	Cheshire West and Chester	1.00363
Cornwall	Cornwall	1.00000
Coventry	Coventry	1.00338
Croydon	Croydon	1.08410
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	1.00338
Durham	Durham	1.00000
Ealing	Ealing	1.14848
East Riding of Yorkshire	East Riding of Yorkshire	1.00000
East Sussex	All	1.00169
Enfield	Enfield	1.08410
Essex Fringe	Basildon, Brentwood, Epping Forest, Harlow	1.03799
Essex non-Fringe	Braintree, Castle Point, Chelmsford, Colchester, Maldon, Rochford, Tendring, Uttlesford	1.00354
Gateshead	Gateshead	1.00000
Gloucestershire	All	1.00630
Greenwich	Greenwich	1.18623
Hackney	Hackney	1.18623
Halton	Halton	1.00363
Hammersmith and Fulham	Hammersmith and Fulham	1.18623
Hampshire	All	1.01419
Haringey	Haringey	1.13216
Harrow	Harrow	1.10042
Hartlepool	Hartlepool	1.00000

Local authority name	Districts	Area cost adjustment
Havering	Havering	1.08410
Herefordshire	Herefordshire	1.00000
Hertfordshire Fringe	Broxbourne, Dacorum, East Hertfordshire, Hertsmere, St Albans, Three Rivers, Watford, Welwyn Hatfield	1.04714
Hertfordshire non-Fringe	North Hertfordshire, Stevenage	1.01568
Hillingdon	Hillingdon	1.10042
Hounslow	Hounslow	1.10042
Isle of Wight	Isle of Wight	1.01419
Islington	Islington	1.18623
Kensington and Chelsea	Kensington and Chelsea	1.18623
Kent Fringe	Dartford, Sevenoaks	1.03799
Kent non-Fringe	Ashford, Canterbury, Dover, Gravesham, Maidstone, Shepway, Swale, Thanet, Tonbridge and Malling, Tunbridge Wells	1.00071
Kingston upon Hull, City of	Kingston upon Hull, City of	1.00000
Kingston upon Thames	Kingston upon Thames	1.10042
Kirklees	Kirklees	1.00016
Knowsley	Knowsley	1.00112
Lambeth	Lambeth	1.18623
Lancashire	All	1.00000
Leeds	Leeds	1.00016
Leicester	Leicester	1.00000
Leicestershire	All	1.00000
Lewisham	Lewisham	1.18623
Lincolnshire	All	1.00000
Liverpool	Liverpool	1.00112
Luton	Luton	1.01568
Manchester	Manchester	1.00546
Medway	Medway	1.00071
Merton	Merton	1.14848
Middlesbrough	Middlesbrough	1.00000
Milton Keynes	Milton Keynes	1.02869
Newcastle upon Tyne	Newcastle upon Tyne	1.00000
Newham	Newham	1.13216
Norfolk	All	1.00000
North East Lincolnshire	North East Lincolnshire	1.00000
North Lincolnshire	North Lincolnshire	1.00000
North Northamptonshire	North Northamptonshire	1.00329
North Somerset	North Somerset	1.01462
North Tyneside	North Tyneside	1.00000

Local authority name	Districts	Area cost adjustment
North Yorkshire	All	1.00000
Northumberland	Northumberland	1.00000
Nottingham	Nottingham	1.00277
Nottinghamshire	All	1.00277
Oldham	Oldham	1.00546
Oxfordshire	All	1.02220
Peterborough	Peterborough	1.01284
Plymouth	Plymouth	1.00000
Portsmouth	Portsmouth	1.01419
Reading	Reading	1.03475
Redbridge	Redbridge	1.08410
Redcar and Cleveland	Redcar and Cleveland	1.00000
Richmond upon Thames	Richmond upon Thames	1.10042
Rochdale	Rochdale	1.00546
Rotherham	Rotherham	1.00000
Rutland	Rutland	1.00000
Salford	Salford	1.00546
Sandwell	Sandwell	1.00338
Sefton	Sefton	1.00112
Sheffield	Sheffield	1.00000
Shropshire	Shropshire	1.00000
Slough	Slough	1.05740
Solihull	Solihull	1.00338
Somerset	All	1.00000
South Gloucestershire	South Gloucestershire	1.01462
South Tyneside	South Tyneside	1.00000
Southampton	Southampton	1.01419
Southend-on-Sea	Southend-on-Sea	1.00354
Southwark	Southwark	1.18623
St Helens	St Helens	1.00112
Staffordshire	All	1.00000
Stockport	Stockport	1.00546
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	1.05740
Sutton	Sutton	1.10042
Swindon	Swindon	1.00717
Tameside	Tameside	1.00546
Telford and Wrekin	Telford and Wrekin	1.00000
Thurrock	Thurrock	1.03799
Torbay	Torbay	1.00000
Tower Hamlets	Tower Hamlets	1.18623

Local authority name	Districts	Area cost adjustment
Trafford	Trafford	1.00546
Wakefield	Wakefield	1.00016
Walsall	Walsall	1.00338
Waltham Forest	Waltham Forest	1.08410
Wandsworth	Wandsworth	1.18623
Warrington	Warrington	1.00363
Warwickshire	All	1.00701
West Berkshire	West Berkshire	1.03475
West Northamptonshire	West Northamptonshire	1.00329
West Sussex Fringe	Crawley	1.05740
West Sussex non-Fringe	Adur, Arun, Chichester, Horsham, Mid Sussex, Worthing	1.00000
Westminster	Westminster	1.18623
Wigan	Wigan	1.00546
Wiltshire	Wiltshire	1.00717
Windsor and Maidenhead	Windsor and Maidenhead	1.05740
Wirral	Wirral	1.00112
Wokingham	Wokingham	1.03475
Wolverhampton	Wolverhampton	1.00338
Worcestershire	All	1.00000
York	York	1.00000

Figure 23: This table shows the schools block area cost adjustment for each local authority.

Annex B: Baselines for schools new in 2022-23

- B.1. There are three categories of school that are in the 2022-23 NFF but were not in the 2021-22 NFF: brand new schools; schools that have been created by amalgamating 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, 2021-22 NFF baselines need to be created. This annex explains how this is done for each category.
- B.3. The explanation in each category reflects how we calculate a baseline equivalent to the 2021-22 NFF allocation.

Brand new schools

- B.4. Brand-new schools (new schools on the 2021-22 APT that have no predecessor in the 2020-21 APT and were therefore not included in the 2021-22 NFF) require a theoretical 2021-22 baseline.
- B.5. To calculate these theoretical baselines, we use the average primary or secondary 2021-22 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 2021-22 NFF. We exclude:

- a. Schools which were identified as new and growing for the 2021-22 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 for each school by taking the pupil-led 2021-22 NFF allocation and dividing by the total NOR for the school in question in the 2021-22 NFF. Schools that were shown in the 2021-22 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 2021-22 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 2021-22 APT) by their LA's primary and secondary per-pupil baseline rate, respectively.

Step 4 We take the pupil-led total from step 3 and add the 2021-22 NFF ACA-adjusted lump sum (i.e. £121,300 multiplied by the 2021-22 ACA for the district in which the school is situated) 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 2022-23 APT if the LA wishes to adopt them.

Amalgamating schools

- B.7. Our approach to deriving the 2021-22 baselines for amalgamating schools uses the same method as the APT: we add together the 2021-22 NFF allocations of the predecessor schools.

Step 1 Take the total 2021-22 NFF funding (excluding premises and adjusted for the full year) for each predecessor school (n = the number of schools)

Step 2 Take $(n-1)$ ACA-adjusted 2021-22 lump sums off this amalgamated baseline total (where the predecessor schools have different ACAs, we use the 2021-22 ACA for the successor school's location).

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), each of the successor schools is given the predecessor's 2021-22 NFF per-pupil pupil-led baseline. This is then multiplied by the NOR of the school for which the baseline is being calculated and adjusting for the full year, before adding the 2021-22 NFF ACA-adjusted lump sum. For all other split schools, we use the approach taken for brand new schools (see Paragraph B.5).

Baseline NOR

- B.9. For these three types of schools that did not exist in the 2021-22 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:
- 2021-22 APT NOR for brand new schools and split schools
 - 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: Sparsity – calculation of road distance

- C.1. This section provides more detail about the move from sparsity straight-line distances to sparsity road distances.
- C.2. For NFF allocations up to and including 2021-22, we used straight line, or crow-fly, sparsity distances; these were calculated using straight lines distances from pupils' postcodes to schools' postcodes. As postcodes tend to cover a number of different properties, we used postcode 'centroids' to set the specific points from which measurements are made in our 'as the crow flies' distances. Centroids are the centre of the properties within the postcode area (henceforth, when referring to distances to or from postcodes, we are referring to postcode centroids). Then, for each school, we identified the pupils who live nearest to it and for whom it is compatible, and calculate the average distance to their second nearest compatible schools. Up to 2021-22, this was each school's sparsity distance.
- C.3. We have made a change for 2022-23, to use road sparsity distance – this is the shortest distance by road from the school site – not the centroid of their postcode, as previously – to the pupil's postcode. To identify the points on the road network, we firstly identify schools' and pupils' locations on a map. To do this we cross-reference geographic data from the school census and Get Information about Schools (GIAS, the Department's database of schools) with Ordnance Survey (OS) address data.
- C.4. Schools can typically be located using Unique Property Reference Numbers (UPRNs). UPRNs are a unique numeric identifier for every addressable location, which are allocated and overseen by local authorities. Use of UPRNs represents a change to the current process, enabling us to measure distances from a point on the road closest to a school's specific site as opposed to their postcode centroids, which can be more or less far away from the actual school site for different schools. In a minority of cases, UPRNs are inaccurately recorded in GIAS by schools, so we revert to use of postcodes or coordinates to locate schools. The GIAS frequently asked questions [web page](#) includes information on how schools can check their UPRNs and correct them if necessary.
- C.5. For pupils, we locate the closest building to their home postcode centroid. Locating the building is a necessary additional step to enable us to determine the correct road to route from. We do not include pupils' postcodes that contain only Welsh or Scottish addresses in the calculation of sparsity distances by the road, because their closest or second closest school(s) might be in Wales or Scotland, for which we are unable to calculate a road distance.
- C.6. Once we have found schools' and pupils' locations, we use the OS road network data to identify the closest access point to their locations on a road. We then calculate the shortest road distance from the nearest point on a road to the school, to the nearest point on a road to the pupil's address, excluding footpaths and, where possible,

avoiding roads such as farm tracks, guided busways and roads that have been altered for use principally by pedestrians as these are either unsuitable for normal school-home journeys or we cannot be certain they will always be accessible. We treat one-way roads as ones that can be accessed and travelled along from either direction. This avoids treating some schools differently in an arbitrary way by factoring in one-way streets on journeys from schools and pupils' homes but not vice versa (because that is the direction of travel the sparsity distance has been based on).

- C.7. Once we have calculated road distances, we calculate schools' sparsity distances in the same way as for the crow-fly distance method: for each school, we identify pupils for whom it is their closest compatible school (by the road), and calculate the average distance to their second nearest compatible schools (by the road). We compare these distances to the sparsity distance thresholds to determine whether the school is remote.

Annex D: Actual 2022-23 funding through the growth factor

- D.1. Our approach for allocating funding through the growth factor to LAs under the NFF for 2022-23 will be to base funding on growth in schools in the local authority area, as observed between the October 2020 and October 2021 school censuses. We measure growth at the level of middle layer super output areas (MSOAs)²⁷, 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 2020 and October 2021 censuses;²⁸
 - c. Still at MSOA level, subtract the October 2020 primary count from the October 2021 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 schools in the October 2021 census (new schools are those schools appearing on the October 2021 census for the first time, where no predecessor is found); and
 - f. Calculate the total LA-level funding through the growth factor following the steps set out in Figure 24 below.

Figure 24: Total LA-level funding through the growth factor

Calculation step	Description
1) Total funding for primary growth	Total primary LA growth count x ACA ²⁹ x £1,485
2) Total funding for secondary growth	Total secondary LA growth count x ACA x £2,220
3) Total new schools funding	New schools count x ACA x £70,800

²⁷ These are areas used by the [Office for National Statistics](https://visual.parliament.uk/msoanames), based on population data. A map of MSOAs can be found at <https://visual.parliament.uk/msoanames>

²⁸ 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.

²⁹ For core NFF funding, five LAs (Buckinghamshire, Essex, Hertfordshire, Kent and West Sussex) have different ACAs for different localities. For growth funding, each LA has a single ACA which is a pupil-weighted average of their 'core' ACAs.

Calculation step	Description
4) Total growth allocation	1) + 2) + 3)

Figure 24: Total LA-level funding through the growth factor in 2022-23

Transitional funding for growth

- D.2. LAs which received transitional protection to their 2021-22 growth funding will be eligible for protection in 2022-23. The maximum reduction in growth funding for these LAs will be set at -0.5% of each LA's total DSG schools block allocation in 2021-22.

Figure 25: Transitional Growth Funding in 2022-23

Calculation step	Example LA receiving transitional protection	Example LA on the formula
1) Total growth allocation in 2021-22	LA 2's growth allocation was £1m, including £200k of transitional protection.	LA 3's growth allocation was £100k, which included transitional protection.
2) Total schools block allocation in 2021-22	LA 2's total allocation was £90m including £1m growth.	LA 3's total allocation was £21m including £100k growth.
3) Total growth allocation in 2022-23	£400k	£50k
4) Calculate the change in growth funding	LA 2's growth funding was £1m in 2021-22 and is £400k in 2022-23, a change of -£600k.	LA 3's growth funding was £100k in 2021-22 and is £50k in 2022-23, a change of -£50k.
5) Calculate the change in growth funding as a % of the 2021-22 schools block allocation	The reduction in LA 2's growth allocation between 2021-22 and 2022-23 is £600k (step 4) which represents 0.67% of the total schools block allocation (step 2).	The reduction in LA 3's growth allocation between 2021-22 and 2022-23 is £50k (step 4) which represents 0.24% of the total schools block (step 2).

Calculation step	Example LA receiving transitional protection	Example LA on the formula
6) Apply the growth transitional protection at -0.5% of the total schools block allocation	LA 2 received transitional protection in 2021-22 and is below the floor (losing 0.67% over the whole 2021-22 schools block) so is allocated an additional £150k (to create an overall reduction of £450k which is equal to 0.5% of the total 2021-22 schools block).	LA 3 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 2022-23 growth funding allocation (step 3) + floor protection (step 6)	LA 2: $£400k + £150k = £550k$	LA 3: $£50k + £0 = £50k$

Figure 25: Transitional Growth Funding in 2022-23



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