Department for Education

High needs national funding formula: technical note

September 2017

Contents

Introduction

This note provides an overview of the high needs national funding formula, and detailed information on how the 2018-19 provisional allocations and 2019-20 illustrative allocations to local authorities have been calculated. For each formula factor, it details the relevant weightings and values applied, the data used and any adjustments made.

We have published full details of the calculations for each local authority within the Impact of the high needs NFF tables[1]

Figure 1 below illustrates how the formula calculation works.

Figure 1: Basic building blocks of the formula
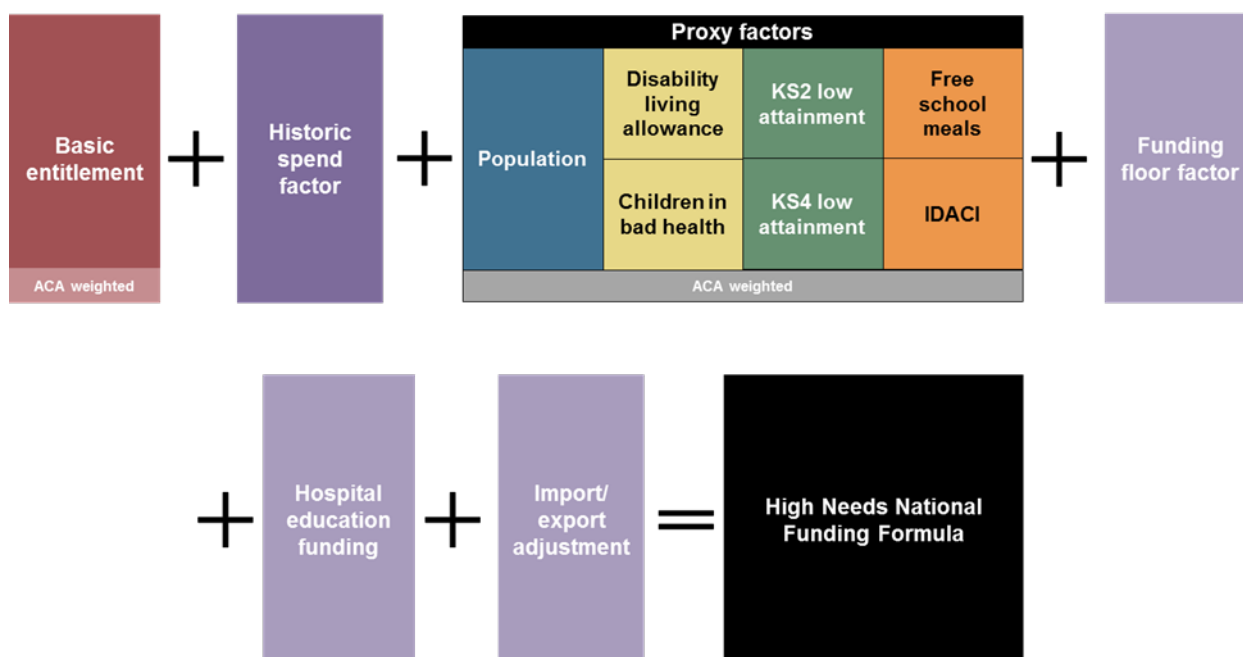
This diagram shows that the factors will be added together to give the formula allocation, with an area cost adjustment applied to the proxy factors and basic entitlement.

Annex A explains how the area cost adjustment (ACA) used in the formula has been calculated, annex B gives additional details on the income deprivation affecting children index (IDACI) deprivation factor, and annex C gives details of the data sources that have been used. Annex D is a glossary of abbreviations and terms used in this document.

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[1] Department for Education, National funding formula tables for schools and high needs, September 2017

Chapter 1: Overview of the high needs national funding formula

1.1   This chapter provides an overview of the high needs national funding formula calculation with the following chapters providing more detail.

1.2   First, each local authority is allocated their basic entitlement factor funding. This provides £4,000 per pupil, using the number of pupils who attend the special schools and special academies in that local authority.

1.3   Second, the historic spend factor is allocated, providing 50% of each local authority's high needs baseline, after some adjustments[2]. This amount will be maintained at a cash-flat level.

1.4   Third, the remaining amount of overall funding is distributed to local authorities using the following proxy indicators: 2-18 year old population, deprivation, health and disability, and low attainment.

1.5   The basic entitlement (1.2) and proxy indicators (1.4) are also subject to an ACA. Area cost differences are implicit in the current expenditure amounts so we do not need to apply the ACA to the historic spend factor (1.3).

1.6   Next, the formula applies the protection of a funding floor to all the above elements, apart from the basic entitlement factor funding. This ensures that, on a per head of population basis, these elements of the formula will increase by at least 0.5% in 2018-19 and 1.0% in 2019-20 over 2017-18. A further layer of protection for local authorities with falling population numbers ensures that no local authority receives less funding than the equivalent figure from the baseline year. There is then a limit on the gains for those local authorities gaining the most through the formula.

1.7   Hospital education funding is then added, which in the 2018-19 allocations is calculated as a 0.5% uplift to adjusted 2017-18 values. In the 2019-20 illustrative allocations a 1.0% uplift is applied to the adjusted 2017-18 values.

1.8   Import/export adjustments are made. These ensure that local authorities that provide places for children and young people with high needs for whom they are not responsible (i.e. imports) receive the place funding in full. Conversely, local authorities that place more children and young people with high needs in provision outside their area (i.e. exports) than they import have a negative adjustment because they do not have to

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[2] This figure comes from the baselines after adjusting for the transfer to the schools block following a change in the funding of special units and resourced provision attached to mainstream schools; and for items specifically funded through other formula elements: the hospital education funding factor, basic entitlement factor, and import/export adjustments. This technical note explains these adjustments in more detail. The DSG funding baseline tables are published by the Education and Skills Funding Agency, Schools funding arrangements 2017 to 2018, August 2017.

meet the costs of the place funding. As part of this adjustment we treat pupils attending non-maintained special schools (NMSSs) and special post-16 institutions (SPIs) as exports, to reflect that place funding for these institutions is allocated directly by the Education and Skills Funding Agency (ESFA) without recoupment or deductions from local authorities' high needs allocations.

Status of the allocations

1.9   We have published provisional allocations for 2018-19 and illustrative allocations for 2019-20.

1.10   The following updates will be made to the provisional 2018-19 allocations to ensure that pupil led factors are as up to date as possible;

a.   December 2017 update to the basic entitlement factor, based on October 2017 school census data.

b.   2018 update to the import/export adjustment, based on January 2018 school census data and February 2018 R06 Individualised Learner Record (ILR) data.

c.   Any adjustments to hospital education funding as a result of the information collected by the ESFA from local authorities in autumn 2017. This update will also be made in 2018.

1.11   The remaining elements of the allocation (the funding through the historic spend factor, proxy factors and funding floor factor, and any gains under the formula) will not be updated. For these elements, therefore, the amounts published in September 2017 are the actual allocation amounts.

Chapter 2: Overall quantum of formula funding

2.1   This section explains how the total quantum of funding for the 2018-19 allocations through the high needs national funding formula is made up.

Figure 2: Setting the quantum of formula funding

Local authority baselines (excluding hospital education funding)	[a]	£5,862,887,146
Transfer of funding to schools block	[b]	-£91,302,173
NMSS and SPI place funding baseline	[c]	£71,745,000
Additional demographic funding added to the high needs funding block in 2018-19	[d]	£38,136,485
High needs funding to be distributed through the basic entitlement factor, historic spend factor and proxy factors	[e] = [a]+[b]+[c]+[d]	**£5,881,466,458**
Additional cost of providing funding floor in 2018-19	[f]	£85,183,388
Hospital education funding (including 0.5% uplift)	[g]	£73,031,230
Total 2018-19 high needs quantum	[h] = [e]+[f]+[g]	**£6,039,681,075**

2.2   The high needs quantum is based on 2017-18 baseline data from local authorities as returned to the ESFA through the baselines exercise[3]. This represents the amount local authorities collectively planned to spend on high needs from their dedicated schools grant (DSG).

2.3   The baseline transfer to the schools block pays for the baseline costs of funding pupils with special educational needs (SEN) in special units or resourced provision in mainstream schools through the local schools funding formulae. From 2018-19, they will be funded through the schools block national funding formula, rather than through the high needs block. The calculation of the transfer from the high needs block to the schools block is explained in the schools block NFF technical note[4].

2.4   The £10,000 per place funding for NMSSs and equivalent funding for SPIs, which is currently funded outside the DSG and directly by the ESFA, is added in order to bring this funding within the scope of the formula. This means that NMSSs and SPIs can be funded in a dynamic way by the local authorities who are using them, albeit paid via the ESFA, for the place funding they receive. This element of the quantum will be allocated as follows:

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[3] Education and Skills Funding Agency, Pre-16 schools funding: guidance for 2018 to 2019, August 2017

[4] Department for Education, Schools block national funding formula: Technical note, September 2017

a. To the ESFA through the basic entitlement of £4,000 per pupil in NMSSs and £4,000 per student in SPIs.

b. To local authorities through the proxy formula factors. £6,000 per pupil/student is then deducted, as part of the import/export adjustments, from the local authorities where the pupils or students are resident. This ensures that the cost of funding these places is borne by the appropriate local authorities and transferred to the ESFA before final allocations are made.

2.5   The quantum includes an uplift in funding to account for demographic growth. This is calculated as the total of all local authorities' 2017-18 historic spend levels (3.13(e)), multiplied by the projected increase in 2-18 year olds between mid-2017 and mid-2018[5].

2.6   The total of the baselines after the adjustments above gives the amount of high needs funding that is distributed through the basic entitlement factor, historic spend factor and proxy factors in the formula. The funding floor factor is an additional cost in the formula, as described in Chapter 3: Formula factors (J) Funding floor factor. Hospital education funding, having been excluded from the baselines as above, is then added, after applying the 0.5% uplift in 2018-19 to reach the total 2018-19 high needs quantum.

2.7   The City of London and Isles of Scilly are excluded from the allocations, as they will each receive a single education grant. The City of London is currently a net exporter of pupils. These pupils need to be included in the allocation calculations in order to produce the correct ESFA and local authority allocations. For this reason, the net import/export adjustment figure is not zero.

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[5] Office for National Statistics, 'Subnational Population Projections, Local Authorities in England: SNPP Z1', May 2016

Chapter 3: Formula factors

3.1   There are twelve elements to the formula, which we denote below with the letters (A) to (L) in line with the published allocations:

> (A)   Basic entitlement factor
> (B)   Historic spend factor
> (C)   Population factor
> (D)   FSM factor
> (E)   IDACI factor
> (F)   Bad health factor
> (G)   Disability factor
> (H)   Key stage 2 low attainment factor
> (I)   Key stage 4 low attainment factor
> (J)   Funding floor factor
> (K)   Hospital education funding
> (L)   Import/export adjustments

(A) Basic entitlement factor

3.2   The basic entitlement factor for pupils and students in specialist provision has the same function as the basic entitlement funding through the schools funding formula (covering 5-16 provision in mainstream schools) and the national 16-19 funding formula (covering all mainstream post-16 provision in schools, colleges and other institutions).

3.3   The basic entitlement funding rate is £4,000 per pupil or student and is subject to an ACA. For details of how the ACA is calculated see annex A.

3.4   As the formula also allocates high needs funding to the ESFA for certain institutions that it funds directly, we treat the ESFA like a local authority and it attracts £4,000 for each pupil in NMSSs and each student in SPIs.

3.5   The published provisional local authority allocations for 2018-19 are based on the number of pupils on roll at maintained special schools and special academies from the October 2016 school census, plus the number of pupils with SEN in independent schools, as recorded on the January 2017 alternative provision census.

3.6   As this factor is directly pupil led, it will be updated based on the October 2017 school census, as explained in paragraph 1.10. The pupil numbers from the January 2017 alternative provision census will not be updated for the 2018-19 allocations.

Calculation of (A) basic entitlement factor

3.7   The calculation for each local authority is as follows:

a) Total the number of pupils on roll at maintained special schools and special academies from the October 2016 school census.

b) Add the number of pupils with SEN in independent schools, as recorded on the January 2017 alternative provision census.

c) Multiply the basic entitlement base rate of £4,000 by the local authority's ACA to give an ACA-weighted basic entitlement rate for each local authority.

d) Multiply the number of eligible pupils by the local authority's ACA-weighted basic entitlement unit rate to get the published basic entitlement factor funding ((a + b) * c).

e) The published basic entitlement factor funding is not final and will be updated with October 2017 school census data.

f) The ESFA's basic entitlement factor amount is calculated as the the number of pupils and students in NMSSs and SPIs, multiplied by £4,000.

(B) Historic spend factor

3.8   The historic spend factor value is based on the baselines for each local authority that were published in August 2017[6] and adjusted as described below. A weighting of 50% is applied to this adjusted figure to give the final figure for the formula. This amount will be maintained at a cash-flat level.

3.9   The published local authority high needs spending baselines include all funding for pupils who are in special units or resourced provision in mainstream schools. From 2018-19, the amount that each of these pupils attracts is included in the schools formula and so the funding is transferred from the high needs block to the schools block. The amount of the baseline transfer has been calculated by undoing the deduction to the local 2017-18 formula pupil number count for schools with units and establishing the additional funding for each school that this higher pupil number would incur. For further details see the schools block NFF technical note[7].

3.10   To avoid double counting, the basic entitlement factor and hospital education funding are subtracted from the baseline amounts used in the historic spend factor as these will be funded in full in factors (A) and (K) on the basis of the most up-to-date data.

3.11   In the same way, we must reverse any transfers of funding between local authorities, due to import/export adjustments, implicit in the baseline. See section (L) for

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[6] Education and Skills Funding Agency, Pre-16 schools funding: guidance for 2018 to 2019, August 2017

[7] Department for Education, Schools block national funding formula: Technical note, September 2017

details of these adjustments. In calculating the historic spend factor amount (B), the purpose is to replicate the position *before* these adjustments have been made so that changes in the movement of pupils and students across local authority borders are fully reflected in the import/export adjustment. Then in (L) import/export adjustments, the most up-to-date import/export position is reflected directly as part of the formula.

3.12   The historic spend factor will remain fixed for 2019-20, based on the calculation for the baseline year 2017-18, whilst other elements of the formula will be updated with later data that becomes available.

Calculation of (B) historic spend factor

3.13   The calculation for each local authority is as follows:

a)   Take the published 2017-18 baseline funding for each local authority, excluding hospital education funding.

b)   Remove the schools block transfer.

c)   Remove the basic entitlement amount relating to the 2017-18 financial year[8]. This uses October 2016 school census data and January 2017 alternative provision census data.

d)   Remove the import/export adjustments value relating to the 2017-18 financial year. This uses January 2017 school and alternative provision census data and R06 ILR data as collected in February 2017.

e)   This gives the total historic spend level. (NB: this amount is also used as a baseline for the funding floor factor calculation and for calculating the gains in 2018-19). (e = a – b – c – d).

f)   Apply the historic spend factor weight of 50% to the historic spend level (f = e * 50%).

(C)-(I) Proxy factors

3.14   The funding available for the proxy factors is the remaining high needs quantum after deducting basic entitlement factor funding and historic spend factor funding. This section explains how this proxy factor funding is distributed. Information on the data sources used for these factors is provided in annex C.

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[8] The data is based on a lag reflecting the general principle in school funding that funding is on a lagged basis thus giving certainty of allocation.

3.15   We have assigned weightings which determine how much of this remaining amount is allocated through each factor. The reasons for these weightings are explained in Chapter 3 of the High needs funding reform - government response and stage 2 proposals[9].

3.16   The weightings for each proxy factor have been specified separately for special educational needs and alternative provision, and then combined using a relative cost weighting, as shown in the table below.

Figure 3: Factor weightings

Proxy factor	SEN weighting (90%)[10]	Alternative provision weighting (10%)[10]	Combined weighting[10]
(C) Population factor	50%	50%	**50%**
(D) Free school meals (FSM) eligibility	8.33%	25%	**10%**
(E) IDACI[11]	8.33%	25%	**10%**
(F) Bad health	8.33%	0%	**7.5%**
(G) Disability	8.33%	0%	**7.5%**
(H) Key stage 2 low attainment	8.33%	0%	**7.5%**
(I) Key stage 4 low attainment	8.33%	0%	**7.5%**

3.17   For the SEN element, 50% of the funding is distributed through the population factor (C) and there is an even split between the remaining proxy factors (D)-(I).

3.18   For the alternative provision element, 50% of funding is distributed through the population factor, and the remaining funding is split evenly through the deprivation factors (D)-(E) only. The remaining factors are given a weight of zero.

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[9] Department for Education, High needs funding reform - stage 2, December 2016

[10] Weightings based on current high needs spending proportions of 90% on SEN provision and 10% on alternative provision. Final weights are then rounded to the nearest 0.5%. The individual IDACI band A-F weights are rounded to the nearest 0.05%, totalling to the 10% shown here.

[11] For further details of how the IDACI factor and weightings are calculated, see annex B.

3.19   For the IDACI factor, the 10% combined total is split between IDACI bands A-F in the following proportions: Band A, 1.15%; Band B, 2.30%; Bands C, 1.70%; Band D, 1.85%; Band E, 1.60%; Band F, 1.40%. For further details of how the IDACI factor and weightings are calculated, see annex B.

Calculation of (C)-(I) proxy factors

3.20   For each proxy factor (C)-(I), the funding is calculated in two stages. For the IDACI factors, this calculation is followed separately for each band A – F.

3.21   First, the total proxy factor funding, as described in paragraph 3.14, is multiplied by the relevant factor's combined weighting shown in figure 3. In the case of each of the IDACI bands, the weighting to apply is stated in paragraph 3.19.

3.22   The funding for each local authority in respect of each proxy factor is then calculated as follows:

a)   Begin with the total funding for each proxy factor as calculated in 3.21.

b)   Take the number of children and young people relevant to the proxy factor in each local authority. For example, for the population factor, we use the total number of children and young people aged 2-18 resident in the local authority area; and for the free school meals factor we use the number of children and young people eligible for free school meals resident in the local authority area.

c)   Multiply this number of children and young people by the ACA for each local authority to give an ACA-weighted number.

d)   Sum all of the local authority values calculated above to give the national total of ACA-weighted children and young people.

e)   Multiply total funding for the factor by the proportion of total ACA-weighted children and young people within each local authority (a * (c / d)).

3.23   An example of how the calculation would be made in a scenario with just three local authorities and £1 million of total funding for one factor is shown in figure 4.

Figure 4: Proxy factor calculation – illustrative example

Local authority (LA)	No. of children eligible for factor	ACA rate	ACA weighted no. of children	Calculation of factor funding	Proxy factor funding
LA 1	100	1.0	100	£1 million * 100/670	£149,254
LA 2	200	1.2	240	£1 million * 240/670	£358,209
LA 3	300	1.1	330	£1 million * 330/670	£492,537
Total	**600**		**670**		**£1,000,000**

(J) Funding floor factor

3.24   The formula includes a funding floor factor which ensures local authorities do not fall below a minimum level of funding, on a like-for-like basis. This factor is applied to funding through the historic spend factor and the proxy factors, (B) – (I) and excludes funding for the basic entitlement and import/export adjustments. There are two elements to the funding floor;

   a)   A per head floor, that ensures that the relevant elements of the funding increase on a per head basis from the 2017-18 baseline year by at least 0.5% in 2018-19 and 1.0% in 2019-20. This is based on the estimated population of 2-18 year olds published by the Office for National Statistics (ONS).

   b)   An absolute floor that ensures that, in any year, the funding does not drop below the 2017-18 baseline year. This prevents any local authorities with a shrinking population from going below their 2017-18 baseline.

3.25   The basic entitlement factor (A) and import/export adjustment (L) are excluded in the calculation of the funding floor factor because we want to ensure that the year-on-year changes reflected by these elements of the formula are fully taken into account. For example, if a local authority that benefits from the funding floor expands the number of places in a special school so that it takes in more pupils, they will receive the corresponding increase in the basic entitlement factor on top of their floor amount. This will also mean that in 2018-19 and beyond some authorities could see a small reduction, despite the funding floor, for example if the number of occupied special school places reduces compared to the baseline year.

3.26   Hospital education funding is also excluded from the funding floor calculation. However, in order to ensure consistency with the funding floor, a 0.5% uplift will be applied in 2018-19 and a 1.0% uplift applied in 2019-20.

3.27   The cost of the funding floor is greater than the gains cap recovery detailed in Chapter 4. The net cost of the funding floor is shown in line (f) of figure 2.

Calculation of (J) funding floor factor

3.28   The per head funding floor is calculated as follows;

    a)   Take the 2017-18 historic spend calculated in paragraph 3.13(e).

    b)   Divide (a) by the mid-2017 ONS population estimate for 2-18 year olds to give the per head funding in 2017-18.

    c)   Multiply (b) by 100.5% to determine the 2018-19 per head funding floor.

    d)   Calculate 2018-19 historic spend factor plus the proxy factor funding.

    e)   Divide (d) by the mid-2018 ONS population estimate for 2-18 year olds to give the per head funding in 2018-19.

    f)   Select the highest of (c) and (e) to use as the per head rate, i.e. max(c,e).

    g)   Multiply the increase in the per head rate by the mid-2018 ONS population estimate for 2-18 year olds. This gives the per head element of the funding floor, i.e calculate mid-2018 ONS population * (f-e).

3.29   The absolute funding floor is then calculated as follows;

    a)   Calculate the 2018-19 historic spend factor plus the proxy factor funding, plus any per head element of the funding floor.

    b)   Compare this to the 2017-18 historic spend calculated in 3.13(e). If the 2018-19 funding is lower, calculate the difference to give the absolute element of the funding floor.

3.30   The funding floor factor is then the total of the per head and absolute elements.

(K) Hospital education funding

3.31   Local authorities pay for places in hospital schools and for other hospital education placements and services. This funding comes from their high needs budgets.

3.32   The hospital education baselines have been adjusted to refect the full year increase for local authorities that were given a part-year increase in 2017-18 to reflect a change in hospital education provision in that year.

3.33   The hospital education factor is calculated as the adjusted baseline plus an uplift of 0.5% in 2018-19 and 1.0% in 2019-20.

3.34   There will continue to be a process in 2018-19 for local authorities to notify the department of changes to their hospital provision, as explained in the high needs funding

operational guide[12]. The development of other funding options will continue to be considered with representatives of the hospital education sector. Further information is set out in the policy document[13].

(L) Import/export adjustments to reflect cross-border movement

3.35   Local authorities' allocations under the high needs national funding formula not only reflect the costs of paying top-up funding to those pupils and students living in their area, for whom they are responsible, but also reflect the costs of the place funding for special schools and other specialist provision located in their area, even if those places are filled by pupils or students from other local authorities.

3.36   NMSSs and SPIs have their full place funding paid directly by the ESFA. As such, from the perspective of the local authority, they are counted as exported pupils and students. Therefore, an adjustment is made to the allocation of the local authority in which the pupil or student is resident, even if the NMSS or SPI is situated within the same local authority. This adjustment is explained in more detail below.

3.37   Similarly, some local authorities are responsible for pupils and students attending special schools and other institutions located outside their borders. In these cases, the place funding for such schools and institutions is met by the local authority where the provider is located.

3.38   The formula we are implementing includes a system of adjustments that will be applied each year, so that:

   a)   If the local authority is a net exporter, the adjustment will be negative, taking funding from the authority's formula share for redistribution to net importers.

   b)   If the local authority is a net importer, the adjustment will give the authority additional funds for the places it provides for children and young people from other authorities.

3.39   This system of adjustments provides a dynamic and automatic way of reflecting the cross-border movement of pupils and students with high needs living in one local authority who attend provision in another. The intention is that the adjustments will enable local authorities to make decisions about placements and the creation of new places, secure in the knowledge that there will be a cost-neutral impact on their high needs budgets, subject to the normal lag between data collection and funding allocations.

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[12] Education and Skills Funding Agency, High needs funding 2018 to 2019: operational guide, September 2017

[13] Department for Education, National funding formula for schools and high needs, September 2017

This is because any "imported" child or young person with high needs will attract £10,000 through the formula: £4,000 through the basic entitlement factor and £6,000 through the import/export adjustment. The adjustments will therefore reflect changing patterns of pupil and student numbers, in such circumstances as:

a) when a local authority imports a lot of pupils and students into the schools and colleges located in the area;

b) when a local authority exports a lot of pupils and students to provision outside the area;

c) when a local authority creates new places or a new institution, even if the places are partially occupied by children or young people from outside the area; and

d) when a local authority wants to provide funding from its high needs budget to help its mainstream schools be more inclusive, even if some of the pupils come from outside the local authority area.

3.40   As the first £4,000 of place funding will go direct to the local authority in which the special school or other institution is based, through the £4,000 basic entitlement element of this high needs formula, or the equivalent in the schools or post-16 national funding formulae, the amount of the adjustment is the remaining £6,000 making up the £10,000 cost per place, as noted above.

3.41   The adjustments use data that take into account all pupils and students with high needs who are attending NMSSs and SPIs, or who are crossing local authority borders to attend other types of provision for pupils and students with high needs, both specialist and mainstream provision, but not alternative provision. The adjustments will be recalculated every year, and work outside both the funding floor and application of the gains calculation. This is so that year-on-year changes in where children and young people are placed can be reflected in full.

3.42   Adjustments will not be made for alternative provision places as insufficient data is held to calculate them, and the way in which funding for alternative provision is actually deployed is much more variable between authorities. We will keep this under review as we consider changes to the funding of alternative provision in future.

Calculation of (L) import/export adjustment

3.43   For the import/export adjustment calculations we consider the following pupils and students:

a) Pupils under 19 in maintained special schools or special academies[14];

b) Pupils under 19 and in primary[15] or secondary schools, for whom the school is in receipt of top-up funding[16];

c) Students over 14 and under 25 in further education[17] for whom the institution is in receipt of top-up funding;

d) Pupils under 19 in NMSSs; and

e) Students over 14 and under 25 in SPIs.

3.44   For (a), (b) and (d) we calculate pupil numbers using the most recent January school census. For (c) and (e) we calculate student numbers using the February R06 cut of the ILR from the academic year preceding the year in which the allocations are made. For the calculation of the historic spend factor we use data relating to the 2017-18 financial year (as set out in paragraph 3.13(e)). For the calculation of the provisional import/export adjustment for 2018-19 published allocations, we also use data relating to the 2017-18 financial year, as this is the most recent currently available. This adjustment will be updated to 2018-19 data in 2018 using January 2018 school census data and February 2018 R06 ILR data as per paragraph 1.10(b).

3.45   For (a)-(c) above we look at both the resident and provider local authority[18] for each pupil or student. Where the resident local authority is unknown we assign the pupil or student to the provider local authority. Any pupils and students who reside outside England are excluded from our final counts.

3.46   For (d) and (e), the ESFA are deemed to be the equivalent of the provider local authority as they pay the place funding directly to institutions. Thus all pupils and students in NMSSs and SPIs are treated as "exports" to the ESFA from the local authority in which the pupils and students are resident. Again, we exclude any known to reside outside England.

3.47   This means that across all local authorities there is a net cash transfer to the ESFA through the formula as they only "import" pupils and students. The existing funding the ESFA holds for these pupils has been added to the quantum for the allocations, as

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[14] Special free schools currently sit outside the funding formula.

[15] Excluding pre-school pupils.

[16] As identified by having a top-up funding "flag" in the school census.

[17] Includes further education colleges, sixth form colleges and independent learning providers, but excludes school sixth forms. The students are identified in the individualised learner record (ILR). Students attending more than one provider will have their headcount split evenly for each provider, e.g. a student in two providers will count 0.5 in each.

[18] The resident local authority is that in whose area a pupil resides. The provider local authority is that from whose high needs funding allocation the costs of the high needs place funding are met.

explained in paragraph 2.4 above, so that it goes to local authorities through the formula, and is then returned to the ESFA through the import/export adjustments. In this way the amount for the ESFA will be dynamic, reflecting changes in usage of NMSSs and SPIs by the authorities that are placing children and young people in these types of provision.

3.48   Rather than adjusting for the specific movements of individual pupils between individual local authorities, we simply adjust for the net position. That is, we look at the difference between the provider local authority and resident local authority counts for each local authority to give a net number of imported or exported pupils/students. Net importers will have a positive value and net exporters will have a negative value. We will publish in October 2017 the institution-level data on which these calculations are based, so local authorities can see the detail and discuss with the institutions involved any discrepancies, in time for an agreed position to be included in the school census and ILR data collection that will be used for the later adjustments and final allocations as detailed in paragraph 1.10(b).

3.49   To summarise the calculation, the steps for each local authority are;

   a)   Calculate the total number of resident pupils and students from the local authority.

   b)   Calculate the total number of pupils and students attending providers in the local authority.

   c)   Calculate the number of net imports to the local authority ($c = b - a$). If this is negative then the local authority is a net exporter.

   d)   Calculate the required adjustment ($d = c * £6,000$). This will be negative for net exporters.

Chapter 4: Calculation of 2018-19 formula allocations and gains

4.1 The national funding formula allocation is calculated as the sum of formula factors (A) - (L).

4.2 The funding floor factor ensures that every local authority receives a 0.5% increase in 2018-19 and 1% increase in 2019-20, compared to the 2017-18 baseline, calculated on a per head of population basis. Arrangements are also in place to provide further increases for those local authorities set to gain under the high needs national funding formula. A limit is applied to the per head gains that each local authority will see over the previous year's allocations, in order to manage the gains from the available resource. This will be set at 3% in 2018-19 and a further 3% in 2019-20.

4.3 For the 2018-19 allocations, the baseline level from which gains are calculated is the same as that used in the funding floor (paragraph 3.24). However, unlike the funding floor, the gains calculation is made on a year-on-year basis. Therefore the baseline for the gains calculation will be recalculated each subsequent year using the fixed historic spend factor and previous year's proxy factor funding total, and the funding floor factor or capped gains if either were applied in the previous year.

4.4 To calculate the 2018-19 allocations;

a) Take the 2017-18 historic spend calculated in paragraph 3.13(e).

b) Divide (a) by the mid-2017 age 2-18 ONS population projection to give a per head amount.

c) Multiply (b) by 103% to give the gains cap per head[19].

d) Calculate the equivalent elements of the 2018-19 allocation, that is, the historic spend factor plus the proxy factor funding plus the funding floor factor.

e) Divide (d) by the mid-2018 age 2-18 ONS population projection to give a per head amount.[20]

f) Take the lower of the gains cap per head (c) and the 2018-19 per head amount (e) to give the 2018-19 per head allocation, i.e. calculate min(c,e).

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[19] This is the same calculation as carried out in 3.28(c) other than the 3.0% uplift as opposed to the 0.5% uplift used for the per head floor.
[20] This is the same calculation is in 3.28(e).

g) Multiply the per head allocation by the 2018 population to give the capped allocation, i.e. calculate the mid-2018 2-18 year old population * (f). This part of the high need allocation for 2018-19 is a final allocation as it comprises components which will not be updated later.

4.5   The total provisional allocation for 2018-19 is then calculated by adding back the basic entitlement factor (A), hospital education funding (K) and import/export adjustments (L). The basic entitlement factor (A) and import/export adjustments (L) are provisional until later data is used to calculate the final allocations, and the hospital education funding may be subject to later adjustments if local authorities notify the ESFA of relevant changes through the published process by 17 November 2017.

Chapter 5: Illustrative allocations for 2019-20

5.1   In order to give local authorities a clearer view of how the formula will work on an ongoing basis, illustrative allocations for 2019-20 are also published.

5.2   These show how the funding floor factor (J) and gains will be calculated in 2019-20.

5.3   For the purpose of this illustrative allocation, it is assumed that the formula allocation calculated in factors (A) to (I) and (K) to (L) will remain equal to 2018-19 so that the impact of the formula can be most clearly seen. In practice, the formula factors will be updated each year with the latest data.

5.4   The funding floor is applied against the 2017-18 baseline . This ensures that, on a per head of population basis, the funding is at least 0.5% higher in 2018-19, and at least 1.0% higher in 2019-20, compared to the 2017-18 baseline. There is an additional absolute floor that also ensures that local authorities receive no less than their 2017-18 baseline on a cash basis, excluding any reductions because of changes to the basic entitlement factor, hospital education funding and import/export adjustment amounts.

5.5   The formula allocation for 2019-20 is then the sum of all factors (A) - (I), (J) and (K) - (L). As with the 2018-19 allocation, gains are limited to 3%, and calculated on a year-on-year, per head basis.

Calculation of indicative allocations for 2019-20

5.6   Formula factors (A) - (I) and (K) - (L) are assumed equal to the 2018-19 amounts, calculated as detailed in Chapter 3.

5.7   The funding floor factor (J) is calculated as follows;

a)   Take the 2017-18 historic spend calculated in paragraph 3.13(e).

b)   Divide (a) by the mid-2017 ONS population estimate for 2-18 year olds to give the per head funding in 2017-18.

c)   Multiply (b) by 101.0% to determine the 2019-20 per head funding floor.

d)   Calculate the 2019-20 historic spend factor (B) plus the proxy factor funding (C) – (I).

e)   Divide (d) by the mid-2018 ONS population estimate for 2-18 year olds to give the per head funding in 2019-20. For the actual 2019-20 allocation, we would use the latest mid-2019 population projection

f)   If the per head funding floor (c) is lower than the per head funding in 2019-20 (e), take the difference and multiply it by the mid-2018 ONS population

estimate for 2-18 year olds. This gives the per head element of the funding floor, i.e calculate mid-2018 ONS population * max(c-e,0).

5.8 The absolute funding floor is then calculated as follows;

a) Calculate the 2019-20 historic spend factor plus the proxy factor funding, plus any per head element of the funding floor.

b) Compare this to the 2017-18 historic spend calculated in paragraph 3.13(e). If the 2019-20 funding is lower, calculate the difference to give the absolute element of the funding floor.

5.9 To calculate the 2019-20 illustrative allocations we;

a) Take the 2018-19 capped allocation 4.4(g), i.e. the total of the historic spend factor, the 2018-19 proxy factors plus any funding floor factor applied, after any gains cap applied in 2018-19. At this point the basic entitlement factor, hospital education funding and import/export adjustments are excluded.

b) Divide (a) by the mid-2018 age 2-18 ONS population projection to give a per head amount for 2018-19.

c) Multiply (b) by 103% to give the gains cap per head.

d) Take the total of the historic spend factor, the 2019-20 proxy factors[21] plus any 2019-20 funding floor factor applied.

e) Divide (d) by the mid-2018 age 2-18 ONS population projection to give a per head allocation for 2019-20. Again, in the actual 2019-20 allocations, this would be the mid-2019 population projection.

f) Compare (e) to the gains cap per head (c). If the gains cap per head amount is higher, no adjustment is needed. If the gains cap per head amount is lower, multiply the gains cap per head amount by the mid-2018 population to give the allocation, i.e. calculate mid-2018 2-18 year old population * min(e,c).

5.10 The illustrative 2019-20 total allocation is then calculated by adding back the basic entitlement factor, hospital education funding and import/export adjustment amounts.

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[21] For the purpose of the 2019-20 illustrative allocations, the proxy factors are assumed to be equal to the 2018-19 proxy factors.

Annex A – Area cost adjustment (ACA)

A.1   The high needs area cost adjustment (ACA) is used to take into account geographical variations in staff costs. The basis of the ACA is the same as used in the schools national funding formula[21].

A.2   The ACA weightings are made up of two factors: general labour market (GLM) data for non-teaching staff, and school workforce census data for teaching staff. As the ratio of teaching to non-teaching staff in special schools is different from that in mainstream schools, this calculation is different to that used for the schools national funding formula.

A.3   The ACA is a combination of:

   a) the teacher pay element – the teachers-specific cost adjustment which reflects the differences in the basic pay ranges between the four regional pay bands for teachers, and

   b) the non-teacher pay element – a GLM cost adjustment to reflect geographical variation in wage costs for non-teaching staff.

Teacher pay element

A.4   The methodology for the teacher pay element of the ACA is designed to bring out the differences in pay scales between the four regional pay bands (inner London, outer London, London fringe and rest of England), but not to reflect any regional differences in distribution along the pay scale.

A.5   This has been calculated from data collected in the school workforce census in early November each year[22].

Non-teacher pay element

A.6   The non-teacher pay element of the ACA is the GLM cost adjustment calculated by the Department for Communities and Local Government for 2013-14. This is calculated from wage rates in the full Annual Survey of Hours and Earnings[23].

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[22] For further details, refer to the schools block national funding formula technical note. Department for Education, Schools block national funding formula: Technical note, September 2017

[23] Department for Communities and Local Government, 'Methodology Guide for the Area Cost Adjustment 2013/14', March 2014

High needs funding formula ACA

A.7   The teacher and non-teaching staff elements of the ACA are weighted in proportion to reported expenditure[24] on teaching and non-teaching staff in special schools.

A.8   The teacher proportion is the total expenditure on teachers, divided by the total expenditure on teachers, non-teaching staff and non-pay. The non-teaching staff proportion is total expenditure on non-teaching staff divided by total expenditure on teachers, non-teaching staff and non-pay.

A.9   The high needs formula ACA ("*A*" below) is given by

$$A = 1 + 41.8\% * (T - 1) + 41.6\% * (G - 1)$$

Where:
41.8% is the teaching staff expenditure proportion
T is the teachers-specific cost adjustment
41.6% is the non-teaching staff expenditure proportion
G is the GLM cost adjustment.

Part fringe local authorities

A.10   There are five local authorities[25] which cross the border of the London fringe. These local authorities have two ACA rates, one for the fringe and one for non-fringe districts.

A.11   In order to calculate an ACA for these local authorities, we have taken a weighted average of the two ACAs based on the population of 2-18 year olds[26] in the fringe and non-fringe districts of each of these five authorities.

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[24] Department for Education, 'LA and school expenditure: 2015 to 2016 financial year', May 2017
Department for Education, 'Income and expenditure in academies in England: 2015 to 2016', July 2017
[25] Buckinghamshire, Essex, Hertfordshire, Kent and West Sussex
[26] Office for National Statistics, 'Mid-2015 Lower Super Output Area Mid-Year Population Estimates', October 2016

Annex B – Income deprivation affecting children index (IDACI) factor weighting

B.1   The formula includes two deprivation factors, FSM and income deprivation affecting children index (IDACI). These factors target funding to more deprived areas as a proxy for higher incidence and cost of high needs.

B.2   The IDACI measures the proportion of all children aged 0-15 living in income deprived families. It is a subset of the Income Deprivation Domain which measures the proportion of the population in an area experiencing deprivation relating to low income. The definition of low income used includes both those people that are out-of-work, and those that are in work but who have low earnings (and who satisfy the respective means tests).

B.3   The factor uses the IDACI for each lower-layer super output area (LSOA) as published by the Department for Communities and Local Government[27].

B.4   The IDACI values are classified into bands A-G by the Department for Education, with band A being the most deprived. The bands are defined as per the table below;

Figure 5: IDACI bands

IDACI band	Start of band	End of band
A	≥ 0.50	≤ 1.00
B	≥ 0.40	< 0.50
C	≥ 0.35	< 0.40
D	≥ 0.30	< 0.35
E	≥ 0.25	< 0.30
F	≥ 0.20	< 0.25
G	≥ 0.00	< 0.20

B.5   The high needs formula is designed so that the unit funding for each band increases from F to A in the same proportions as the per-pupil unit values in the calculation for the IDACI factor in the schools block national funding formula.

B.6   To allocate funding for the IDACI factor, it is split into six separate factors, which cover the bands A, B, C, D, E, and F. The differences in the band unit costs used within the schools block IDACI factor, together with the population within each band is used to produce these splits as described below and set out in figure 6.

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[27] Department for Communities and Local Government, 'English indices of deprivation 2015', September 2015

B.7   For each IDACI band the average of the schools block primary and secondary unit values is calculated.

B.8   Next, the relative increase of each schools block band average from the schools block band F average is calculated.

B.9   For each band, these relative increases are weighted by the corresponding 2-18 population figures[28]. This gives the relative funding required for each band. From this the percentage, relative funding for each band is then calculated.

B.10   Finally, this percentage is multiplied by 10%, which is the weighting of the total ICADI factor, and rounded to the nearest 0.5%.

B.11   The full calculation is as set out in the table below.

Figure 6: IDACI band calculations

		Band F	Band E	Band D	Band C	Band B	Band A
SB NFF unit values	**Primary (a)**	£200	£240	£360	£390	£420	£575
	Secondary (b)	£290	£390	£515	£557.50	£600	£810
Average unit rate (c) = ((a)+(b))/2		£245	£315	£437.50	£473.75	£510	£692.50
Relative increase from band F (d) = band rate/band F rate		1.000	1.286	1.786	1.934	2.082	2.827
2-18 population per band (e)		1,081,832	943,004	798,403	681,064	845,473	317,246
Population per band uplifted by the relative increase from band F (f) = (d) * (e)		1,081,832	1,212,434	1,425,720	1,316,955	1,759,964	896,706
Weighting to apply (g) = (f)/total of row (f)		14.1%	15.8%	18.5%	17.1%	22.9%	11.7%
Factor weight (h) = (g) * 10%		**1.40%**	**1.60%**	**1.85%**	**1.70%**	**2.30%**	**1.15%**

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[28] Office for National Statistics, Lower Super Output Area Mid-Year Population Estimates, October 2016

Annex C – Data sources used

Basic entitlement factor data sources

C.1   We will use data from the most recent October school census and January alternative provision census at the time the allocations are finalised. This includes all pupils under 19 in maintained special schools and special academies (from the school census) and pupils with special educational needs in independent schools (from the alternative provision census). For the provisional 2018-19 allocations published in September we use data collected in the October 2016 school census and the January 2017 alternative provision census. The basic entitlement factor funding will be updated in December using data from the October 2017 school census.

Historic spend factor data sources

C.2   The 2018-19 and 2019-20 allocations will both use 2017-18 spending baselines to produce the historic spend factor. For the local authority 2017-18 baselines we use the high needs block baseline figures published in August 2017[29].

C.3   The amounts used are the high needs block adjusted baseline after the transfer of funding from high needs block to schools block for core funding for pupils in special units or resourced provision, and excluding the hospital education funding. These adjustments are all as published in the DSG funding baselines tables.

Proxy factor data sources

C.4   The table below lists each of the formula proxy factors, and the data sources we use in the 2018-19 allocations.

C.5   Where information is collected and data sets published infrequently – for example, the data from general population censuses (every 10 years) and data from the IDACI (every 5 years) – we will look carefully at the impact of using any new data sets because of the step change that might result from using the latest data without transitional arrangements.

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[29] Education and Skills Funding Agency, 'DSG funding baseline tables', August 2017

Figure 7: Data sources for each proxy factor

Proxy factors	Data used for 2018-19 allocations	Data source
Population factor	The projected number of children and young people aged 2-18 resident in the local authority area in mid-2018, based on mid-2014 data.	ONS[30]
Bad health	The number of children aged 0-16 in bad or very bad health who were resident in the local authority area, as reported by parents in the 2011 general population census.	ONS[31]
Disability	The number of children aged 0-16 for whom parents resident in the local authority area are in receipt of disability living allowance as at November 2016 (published in May 2017).	ONS, 'DWP benefit claimants - disability living allowance, nomis database of labour market statistics', November 2016. Select geography; countries: England only local authorities: county / unitary (prior to April 2015): All Select age: aged under 5, aged 5 to under 11, aged 11 to under 16

[30] Office for National Statistics, 'Subnational Population Projections, Local Authorities in England: SNPP Z1', May 2016

[31] Office for National Statistics, 'LC3203EW – general health by religion by sex by age, nomis database of labour market statistics', August 2013

Proxy factors	Data used for 2018-19 allocations	Data source
Key stage 2 low attainment	The number of pupils resident in the local authority area who did not attain level 3 in reading at key stage 2 tests in years: 2012 to 2015. PLUS The number of pupils resident in the local authority area who did not attain a scaled score in the 2016 key stage 2 reading test or who weren't entered into the test due to being below the standard or unable to access the test. The numbers are taken from the test results for all mainstream and special maintained schools and academies.	Department for Education[32]
Key stage 4 low attainment	The number of pupils resident in the local authority area who did not attain 5 GCSEs at grades A* to G for the last 5 years: 2012 to 2016.	Department for Education[33]
FSM eligibility	The number of pupils resident in the local authority area who are registered as eligible for FSM, as recorded in the January 2017 school census. FSM eligibility is determined by the household's benefit entitlement status.	Department for Education

[32] Department for Education, 'Statistics: key stage 2', June 2017
From 2016, attainment will not be measured by levels, so a suitable alternative measure of low attainment will be used.
[33] Department for Education, 'Statistics: GCSEs (key stage 4)', October 2016

Proxy factors	Data used for 2018-19 allocations	Data source
IDACI	The number of children aged 2-18 living in a lower super output area captured by the IDACI bands[34]. Data from ONS mid-2015 population estimates[35] is matched to the IDACI dataset published in September 2015.	Department for Communities and Local Government and ONS

C.6   Where there are future changes in the available data (as has been the case this year, for example, with changes to attainment data following new assessments at the end of key stage 2) we will carefully consider how best to use the available data in the formula factor calculations.

C.7   Where we have used data from the school census or ILR, counting pupils or students resident in a local authority using postcode information collected (for example, for key stage 2 low attainment and free school meals), this data has not been published before, but is derived from data that has been published in a different form, i.e. according to the school or institution attended by the pupil or student, or the local authority in which the school or academy is located). The counts of pupils and students for whom top-up funding is paid to schools and other institutions – which is used for the calculation of the import/export adjustments in the illustrative allocations – have not been published previously.

Import/export adjustment data sources

C.8   Data from the school census is used for the import/export adjustments: special schools' (maintained special schools, special academies and NMSSs) pupil numbers and the numbers of pupils for whom mainstream schools receive top-up funding. For the provisional 2018-19 allocations we have used January 2017 school census data.

C.9   Data from the ILR is also used for these adjustments: the numbers of students in SPIs and the numbers of students for whom other non-school post-16 further education (FE) institutions receive top-up funding. For the published 2018-19 allocations we have used ILR data R06 cut taken in February of the 2016/17 academic year.

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[34] Department for Communities and Local Government, 'English indices of deprivation 2015', September 2015
[35] Office for National Statistics, 'Lower Super Output Area Mid-Year Population Estimates', October 2016

C.10   In October 2017 we will make available to local authorities the detailed data at institution level used in the provisional allocations.

C.11   In 2018 the import/export adjustment will be updated with January 2018 school census data and data from the February R06 ILR for 2017/18 .

Hospital education funding data sources

C.12   The hospital education funding amounts for 2017-18 are included in the published August 2017 baselines[36]. In a small number of cases we have made some further adjustments to reflect the full year increase for local authorities that were given a part-year increase to reflect a change in hospital education provision in 2017-18.

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[36] Education and Skills Funding Agency, 'DSG funding baseline tables', August 2017

Annex D – Glossary

The following abbreviations and terms are used in this technical note, the 2018-19 allocations and the high needs consultation document:

ACA	Area cost adjustment
DSG	Dedicated schools grant
ESFA	Education and Skills Funding Agency
FSM	Free school meals
GLM	General labour market
IDACI	Income deprivation affecting children index
ILR	Individualised learner record
LSOA	Lower-layer super output area
min(x,y)	The minimum of x and y
max(x,y)	The maximum of x and y
NFF	National funding formula
NMSS	Non-maintained special school
ONS	Office for National Statistics
Provider local authority	The local authority that meets the costs of the high needs place funding from its high needs funding allocation, usually the authority of the area in which the provider (e.g. school or college) is located.
Resident local authority	The local authority of the area in which a pupil resides. This authority is responsible for securing the provision for the pupil and paying any associated top-up funding.
SEN	Special educational needs
SPI	Special post-16 institution

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