

AGENDA SUPPLEMENT (2)

Meeting: Schools Forum
Place: Online meeting
Date: Thursday 11 March 2021
Time: 1.30 pm

The Agenda for the above meeting was published on 3 March 2021. Additional documents are now available and are attached to this Agenda Supplement.

Please direct any enquiries on this Agenda to Lisa Pullin, Tel 01225 713015 or email committee@wiltshire.gov.uk, of Democratic Services, County Hall, Bythesea Road, Trowbridge.

Press enquiries to Communications on direct lines (01225)713114/713115.

This Agenda and all the documents referred to within it are available on the Council's website at www.wiltshire.gov.uk

13 **Updates for Schools Forum (Pages 3 - 36)**

Update on consultation on support for small rural schools

A report to outline the consultation issued by the DfE regarding proposed changes to the Sparsity factor from the 2022-23 year is now available and attached.

DATE OF PUBLICATION: 10 March 2021

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Wiltshire Council

Schools Forum

11th March 2021

Consultation – Changes to the Sparsity Factor 2022-23

Purpose of report

1. To outline the consultation issued by the Department for Education regarding proposed changes to the Sparsity factor from the 2022-23 year. The report is for information only.

Background

The Department for Education (DfE) published their consultation '*Schools National Funding Formula: changes to sparsity factor*' on the 2nd March 2021. (Guidance attached and [Link to the Consultation](#))

2. The DfE are seeking views on their proposals to continue to improve how the funding system supports small schools in rural areas through further changes to the national funding formula's sparsity factor from 2022 to 2023.
3. During the DfE's research, their evidence has suggested that the group of schools which are experiencing the most significant financial challenges are small, remote schools. The DfE recognise the vital role that such schools play in the rural communities they serve and that without them pupils could face long travel distances to school.
4. The purpose of the consultation is to seek views on how the DfE propose to provide additional support to schools through further changes to the Sparsity factor.
5. The definition of sparsity for the purposes of the National Funding Formula is currently:
 - Primary schools with 150 pupils or less and the average distance from each pupil's home postcode to their next nearest compatible school is 2 miles or greater as the crow flies
 - Secondary schools with 600 pupils or less and the average distance from each pupil's home postcode to their next nearest compatible school is 3 miles or greater as the crow flies
 - The maximum funding payable through this factor for eligible schools is £45,000 for primary schools and £70,000 for secondary schools.

The Consultation

6. The consultation makes two proposals;
 - To begin measuring sparsity distances by 'road distances' rather than as the 'crow flies' distances, to better reflect the distances between schools, in rural locations
 - To increase the maximum sparsity distances by £10,000 across all phases
7. The questions which comprise the consultation are detailed below.

Q1a. Do you support our aim to allocate sparsity funding to a greater number of small schools in rural areas?

Yes, No, Unsure.

Q1b. Do you agree to us targeting additional sparsity funding to roughly 900 more schools nationally than at present?

Target a greater number, This is about the right number, Target a lower number, Unsure.

Q2a. Do you agree with our plan to measure sparsity distances by the road?

Strongly agree, Agree, Disagree, Strongly Disagree, Unsure.

Q2b. Do you agree with our plan to maintain the same sparsity factor distance thresholds as in 2021-22?

Set higher thresholds, These are the right thresholds, Set lower thresholds, Unsure.

Q2c. Do you agree with our proposed increase to the primary and secondary maximum sparsity factor values of £10,000?

Allocate a higher amount, This is about the right amount, Allocate a lower amount, Unsure.

Q2d. Do you have any further comments regarding the design of the schools NFF sparsity factor from 2022-23?

Q3a. Do you have any comments on our methodology to calculate sparsity distances by the road?

Q3b. We welcome any additional comments about our proposals and our equalities impact assessment (Annex D), including any evidence, examples, or data of possible equalities impacts of the proposals.

8. All schools have unavoidable fixed costs and with smaller schools there is not the same opportunities to grow and increase additional revenue, based upon their pupil cohorts and characteristics. There are also financial challenges faced by smaller rural schools for attracting additional pupils and achieving efficiencies.
9. Through the DfE's analysis, there are currently around 1,200 schools eligible for sparsity funding nationally and the change in calculating sparsity distances would increase this number by around 900 schools. (Based upon the DfE's analysis using the October 2019 census)

The Wiltshire Position

10. The DfE have issued data to local authorities demonstrating the impact of the change in calculating the sparsity distance.
11. Based upon the information issued by the DfE for the 2020-21 financial year, using the October 2019 census information, the 'shift' in eligible schools is set out in the table below.

2019-20 Actual	Primary	Secondary
Eligible Schools	29	2
Ineligible Small Schools	44	1
Total Funding	295,789	49,950
Avg per School	10,200	24,975
Proposed	Primary	Secondary
Eligible Schools	52	3
Ineligible Small Schools	21	0
Total Funding	530,380	74,925
Avg per School	10,200	24,975
Growth	Primary	Secondary
Eligible Schools	23	1
Funding (Est.)	234,591	24,975

12. Wiltshire currently has 73 primary schools and 3 secondary schools that fall into the 'small' schools' definition for sparsity funding.
13. Of the 73 small primary schools, currently only 29 of the schools are eligible for sparsity funding under the 'crow flies' distance whereas under the 'road distances', 52 schools would become eligible for the sparsity funding. This would still leave 21 small primary schools ineligible for the sparsity funding.
14. Within the secondary schools, Wiltshire has 3 small secondary schools of which 2 are currently eligible for sparsity funding. A change in the calculation of the sparsity distance would ensure that all 3 secondary schools are eligible.

15. The question Schools Forum have wrestled with previously when considering the sparsity factor has revolved around having two 'like' schools, one being eligible for sparsity and the other, due to sparsity distances, being ineligible for what is considered a significant amount of funding.
16. To demonstrate the impact of the changes in the distance methodology, a sample of primary schools of around 70 pupils on roll was selected. The results are set out in the table below.

School Name	Phase	Average year size	Distance crow flies	Eligible (Crow Flies)	Distance road	Eligible (Road Distance)
Five Lanes	Primary	10.1	2.18	Yes	2.86	Yes
Heddington	Primary	10.1	1.91	No	2.68	Yes
Horningsham	Primary	10.4	3.00	Yes	3.95	Yes
Kennet Valley	Primary	10.4	2.68	Yes	2.83	Yes
Longford	Primary	10.3	1.09	No	1.09	No
Newton Tony	Primary	10.4	2.10	Yes	2.64	Yes
Seagry	Primary	9.7	1.39	No	1.61	No

17. Of the 7 small schools in the sample, 4 are currently eligible for sparsity funding using the 'crow flies' methodology. Under the 'road distance' methodology, another school would become eligible for the sparsity funding. However, two schools in the sample would still remain ineligible.

18. The two ineligible schools are both small, with a rural catchment area but would not receive the sparsity funding.

Alternative Options

19. Sparsity need not be the only solution to supporting small and rural schools and amongst other options, could include;

- Reducing the distance threshold to 1 mile – this would mean that only 5 of Wiltshire's 73 small schools would not be eligible (all urban small schools)
- Graduating the 'Lump Sum' in favour of small schools and using a sliding scale of thresholds, for example
 - Up to 50 pupils £200,000
 - 51 pupils to 100 pupils £180,000
 - 101 pupils to 150 pupils £160,000
 - 151 pupils to 200 pupils £140,000
 - Over 200 pupils £120,000
- Applying the minimum per pupil funding level on a graduated scale. For small schools, spreading the lump sum over a small number of pupils results in a disproportionate impact upon their overall 'per pupil' funding.

20. There will of course be many other options, but support for small and rural schools may not be fully met through the sparsity funding.

Proposal

21. Schools Forum is asked to note the content of this report.
22. Schools Forum members are encouraged to ask colleagues to participate and respond to the consultation.

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[Link to the Consultation](#)

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Department
for Education

Schools NFF: Proposed changes to sparsity funding from 2022-23

Government consultation

Launch date 02 March 2021

Respond by 09 April 2021

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Introduction

The government remains committed to its mission to level up the education system so that every child, whatever their background and wherever they live in the country, can benefit from the great education they deserve. We are backing that commitment with the largest cash boost for schools in a decade. Core school funding is increasing by £2.6bn in 2020-21, £4.8bn in 2021-22 and £7.1bn in 2022-23, compared to 2019-20.

Alongside this funding, we know it is vital to ensure resources are directed where they are needed most by maintaining and improving the schools National Funding Formula (NFF). The introduction of the NFF in 2018-19 has already made the funding system fairer, allocating funding based on schools' and pupils' needs and characteristics – not accidents of geography and history. We continue to keep the formula under review, so that it is responsive to schools' financial challenges and evidence of their needs.

One group of schools that evidence suggests and that we have heard are facing particular financial challenges are small, remote schools. We recognise the vital role that such schools play in the rural communities they serve and that without them pupils could face long travel distances to school. We have considered ways to continue to improve how the funding system supports such schools, building on our public commitment to do more to support this group of schools and on increased funding through the NFF's sparsity factor from 2021-22. The purpose of this consultation is to seek views on how we propose to provide additional support to small, remote schools through further changes to the NFF's sparsity factor in 2022-23.

Receiving views on these proposals is particularly important in light of the government's long-term plans to move to a 'hard' NFF, where schools' budgets will be determined on the basis of a single national formula. We recognise that the move to a 'hard' NFF is a significant one, which will need to occur over enough time to ensure that this important change can be introduced smoothly. In the coming months we will launch a consultation on how we propose to move, over time, to a hard NFF. The 'soft' NFF, where local authorities design local funding formulae within certain parameters, will remain in place for 2022-23.

Who this is for

- Local authorities
- Schools
- Any other interested organisations and individuals

Issue date

The consultation was issued on 02 March 2021.

Enquiries

If your enquiry is related to the policy content of the consultation you can contact the team on:

- SparsityFactor.CONULTATION@education.gov.uk

If your enquiry is related to the DfE e-consultation website or the consultation process in general, you can contact the DfE Ministerial and Public Communications Division by email: Consultations.Coordinator@education.gov.uk or by telephone: 0370 000 2288 or via the [DfE Contact us page](#).

Additional copies

Additional copies are available electronically and can be downloaded from [GOV.UK DfE consultations](#).

The response

The results of the consultation and the Department's response will be [published on GOV.UK](#) in summer 2021.

About this consultation

This consultation makes a number of proposals:

- To begin measuring sparsity distances by road journeys rather than ‘as the crow flies’ distances, to better reflect the actual distance between schools, particularly in rural locations.
- To increase the maximum sparsity factor values by £10,000 across all phases in the 2022-23 schools national funding formula (NFF).

The first part of the document sets out:

- Existing support for small and remote schools in the schools NFF.

The subsequent parts of the document set out:

- The overarching aim of further increasing support to small, remote schools in the schools NFF.
- Our specific proposals to achieve this.
- The technical design of the newly proposed sparsity distance measure, by road journeys.

We would like to hear your views on our proposals.

Respond online

To help us analyse the responses please use the online system wherever possible. Visit www.education.gov.uk/consultations to submit your response.

Other ways to respond

If, for exceptional reasons, you are unable to use the online system, for example because you use specialist accessibility software that is not compatible with the system, you may download a word document version of the form and email it or post it.

By email

- SparsityFactor.CONULTATION@education.gov.uk

By post

Peter Stopford
Department for Education
Sanctuary Buildings
Great Smith Street

London
SW1P 3BT

If you do need to respond by email or post, please inform us of your name, organisation and role. Please also refer to Annex E to inform us whether you want all, or any part of, a response to be treated as confidential.

Deadline

The consultation closes on 09 April 2021.

Section 1. Current support for small and small and remote schools in the NFF

The NFF recognises that small schools have unavoidable fixed costs but do not necessarily have the same opportunities as other schools to grow and increase revenue, which is largely based on pupils and their characteristics. Therefore, the NFF provides a lump sum (£117,800 in 2021-22), which is a minimum amount of funding that every school attracts irrespective of the number of pupils on roll or its pupils' characteristics. This is particularly beneficial for small schools, to guarantee a certain level of income that is not determined by size.

The NFF also recognises additional financial challenges faced by small schools in rural areas, due to such schools' particularly limited opportunities to attract more pupils, or to achieve efficiencies (e.g., shared senior leadership teams) and hold down costs compared to similar sized schools in less remote areas. In addition, such schools often play a significant role in the communities they serve and educate pupils who might otherwise have to travel unreasonably long distances to attend school. Therefore, the NFF allocates additional funding beyond the lump sum to small schools in rural areas through the 'sparsity factor'.

Eligibility for additional funding through the sparsity factor is determined by a school's size and remoteness. A school attracts sparsity funding if:

- Its average year group size is below the appropriate year group threshold. This threshold is 21.4 for primary schools, 69.2 for middle schools, 120 for secondary schools and 62.5 for all-through schools; and
- For all the pupils for whom it is the nearest compatible school¹, the average distance (currently calculated 'as the crow flies', using straight-line distances) from each pupil's home postcode to their second nearest compatible school² (the sparsity distance) is equal to or more than three miles (for secondary schools) or two miles (for all other schools).

Since the introduction of the NFF in 2018-19, the number of schools eligible for sparsity funding ('sparse' schools) has remained broadly the same. In the 2021-22 NFF approximately 1,200 schools are eligible to attract sparsity funding, 90% of which are primary schools. The number of sparse schools can change each year due to: incoming pupil cohorts living in different locations than outgoing pupil cohorts, resulting in changes to schools' sparsity distances; schools opening, closing, or changing location; or where schools' average year group sizes change.

¹ A compatible school is one that admits pupils of the same age group and gender.

² Selective grammar schools are not considered when identifying the second nearest school; faith schools are.

For 2021-22, we have increased the maximum amount that each eligible school can attract through the NFF's sparsity factor from £26,000 to £45,000 for primary schools, and from £67,600 to £70,000 for secondary schools. As a result, the total amount allocated through the sparsity factor is rising to £42m in 2021-22 – an increase of £16m, or 62%, from 2020-21. The average sparse school, across both phases, will attract almost £35,000 through the sparsity factor in 2021-22, a significant increase from £21,000 in 2020-21.

The amount each sparse school attracts through the sparsity factor is determined by its size – the smaller the school (in terms of average group size), the greater its allocation, up to the maximum sparsity factor values in 2021-22 of £45,000 for sparse primary schools and £70,000 for sparse secondary, middle and all-through schools. We calculate a sparsity weighting for each school that is eligible for sparsity funding, which sets the proportion of the maximum sparsity sum for which that school is eligible (see Annex A for a fuller explanation).

Our decision to increase the level of funding to small, remote schools in 2021-22 was driven by evidence – published data on deficits and school closures indicates that this group of schools are likely to require additional support. Such evidence has been corroborated by what we have heard about the financial challenges of such schools from stakeholders, including the National Association of Head Teachers, the Church of England Education Office and Catholic Education Service, and in response to our consultation on mandatory minimum per pupil funding levels in 2019. Our decision to prioritise a significant increase at primary phase was in recognition that almost 90% of sparse schools are primaries, and that the average sparse primary school receives less revenue funding based on pupil numbers or characteristics than a typical sparse secondary school.

Under the 'soft' NFF, the sparsity factor is currently optional in local authorities' funding formulae. Where the sparsity factor is used, its design can be changed in local formulae by setting different factor values³ (in the same way, local authorities can set different values to the NFF for the lump sum) and/or by using a different type of weighting⁴. In addition, a small number of requests have been approved to allow local authorities to provide more for very small sparse secondary schools and/or a different sparsity distance where the 'crow flies' distance significantly misrepresents a school's remoteness.

³ In 2020-21, 51 of 54 authorities with sparse schools used the sparsity factor and 43 set similar factor values to the NFF's, 38 of which set the exact same values. In local formulae, these can be set between £0 and £100k.

⁴ Local authorities can use the NFF's sparsity weighting calculation or a different weighting: a continuous taper or fixed amount (see Annex A for more information).

Section 2. Increased support for small, remote schools

To build on the increased sparsity factor values that will be introduced from 2021-22, we aim to broaden the reach of the sparsity factor to a greater number of small schools serving rural communities from 2022-23. This is to increase the support for schools that are currently not identified as being sparse in the NFF, many of which are marginally below the factor's distance thresholds, but that are likely to face similar financial challenges to those that are.

Of all primary schools that are not sparse in the 2021-22 NFF, 282 that are small (measured against the sparsity factor's size threshold) are between 0 to 0.2 miles below the distance threshold and 324 are between 0.21 and 0.4 miles below. A further 366 primary schools are between 0 and 0.4 miles away but are not currently small. Of all non-sparse secondary schools, 9 small schools are between 0 to 0.3 miles below the threshold and 12 are between 0.31 and 0.6 miles below. A further 130 secondary schools are between 0 and 0.6 miles away but are not currently small.

Therefore, 1,123 primary and secondary schools are no more than two-tenths of a mile below their respective sparsity distance thresholds in the 2021-22 NFF. Of this group, 56%, or 627, are also small, measured against the sparsity factor's average year group size thresholds, and 19% are small enough to have received the maximum sparsity factor value had they been eligible for sparsity funding. In contrast, 786 primary and secondary schools are within two-tenths above the sparsity distance thresholds, 482 of which are also small.

This data highlights that there are a significant number of schools narrowly below the distance thresholds, and more than the number narrowly above them. This demonstrates that many schools are missing out on funding through the sparsity factor despite being likely to face similar challenges to schools that are currently eligible. Our aim, to broaden the reach of the sparsity factor, would see small schools that are currently just below the distance thresholds receive greater levels of support through the NFF.

We intend to achieve this aim by improving the methodology used to identify remote schools. Our proposal is to begin measuring sparsity distances by road journeys rather than 'as the crow flies', which will better reflect the actual distance between schools and help us to identify schools that warrant extra support more accurately (more detail in Section 3). To illustrate the impact of this change, we have measured schools' sparsity distances by the road using the same data as in the 2021-22 NFF. This would have seen approximately 900 more schools become eligible for sparsity funding (see the 'sparsity consultation data tables' spreadsheet for a full list), which means 54% of total

small schools would have been eligible – up from 30% under the current distance measure.

Areas that would have seen the greatest increase in the number of sparse schools are largely those with many small schools currently close to the thresholds, and where the new measure will have more of an impact on schools' sparsity distances due to road journeys being significantly longer than 'crow flies' journeys.

Q1a. Do you support our aim to allocate sparsity funding to a greater number of small schools in rural areas?

Yes, No, Unsure.

Q1b. Do you agree to us targeting additional sparsity funding to roughly 900 more schools nationally than at present?

Target a greater number, This is about the right number, Target a lower number, Unsure.

Section 3. The design of the sparsity factor in 2022-23

To improve how we identify sparse schools in the NFF, we propose measuring sparsity distances by road journeys from 2022-23. The purpose of this is to better reflect actual journeys that pupils would be likely to take to their closest and second closest schools. This will help to identify remote schools more accurately and fairly compared to the ‘crow flies’ distance measure which can underestimate remoteness, particularly in rural areas where straight-line distances do not typically reflect actual journeys. A detailed explanation of the new distance measure is in Section 4.

While sparsity distances can only be a proxy for remoteness and additional financial challenges, we recognise the need for as accurate and fair a measure as is reasonably possible. This is to ensure that sparsity distances are a good indicator of greater need and that the schools NFF is distributing funding where extra resource is most likely to be needed. This proposal addresses comments made by some respondents in the original consultation on the introduction of the NFF, which called for a more accurate measure to reflect actual travel times.

We propose maintaining the same distance thresholds as in 2021-22: two miles for primary, middle, and all-through schools and three miles for secondaries. Therefore schools with sparsity distances calculated by the road that meet or exceed these thresholds and that are small, according to the sparsity factor’s average year group size thresholds, would be eligible for sparsity funding in 2022-23. Given road-based sparsity distances between two points are always greater than straight-line-based sparsity distances, we would see an overall increase in the number of schools eligible for sparsity funding – there are nevertheless a very small number of exceptions to this because of the way the new methodology is calculated.⁵ As in previous years, schools that are sparse one year but not the next – due to changes in methodology or changes in schools’ and/or pupils’ locations, and/or average year group size – would be protected from losses through the funding floor (or ‘minimum funding guarantee’). We also propose keeping the definition of a small school the same in 2022-23 as in 2021-22.

In addition to improving the sparsity distance measure, we propose further increasing the maximum sparsity factor values by £10,000 across all phases in the 2022-23 NFF. When coupled with the lump sum, a £10,000 increase in the sparsity factor values would mean sparse primary and secondary schools could attract up to £172,800 and

⁵ There are some exceptions that explain why a school’s sparsity distance could decrease due to the new measure. Firstly, some pupils will have different closest schools under the road measure compared to the ‘crow flies’ measure. As each school’s sparsity distance is based on *the pupils for whom it is their closest school*, changes in pupils’ closest schools will in turn affect sparsity distances. Secondly, use of Ordnance Survey datasets has enabled us to measure distances from schools’ exact property locations, rather than the centre of their postcodes as under the ‘crow flies’ measure. Therefore the new measure is not necessarily starting or ending at the exact same point as the existing one. Thirdly, a very small minority of pupil postcodes that would have been included in the existing measure will be omitted (explained in section 4).

£197,800 respectively through these two factors, before taking account of funding based on pupils and their characteristics, or any increase to the lump sum in 2022-23. This represents increases of 28% and 13% respectively to the value of the combined lump sum and maximum sparsity factors since the NFF was introduced in 2018-19, and almost exceeds the maximum lump sum that was included in local funding formulae before the introduction of the NFF. From 2023-24, further increases to the sparsity factor values, beyond the additional £10,000 increase in 2022-23, would be considered in the round alongside other factors.

Based on our illustration of the impact of these changes, measuring sparsity distances by the road and increasing the maximum sparsity factor values by £10,000, the total amount allocated through the sparsity factor would have increased by £43m to £85m. This would result in significant amounts of additional funding and support for sparse schools. This is without having an excessive impact on the increases that will be affordable to the values of factors concerning pupils' characteristics – given the additional spend represents a low proportion of the total Schools Block value in 2021-22. We think this achieves a good balance between better supporting small, remote schools, helping to ensure that pupils in rural areas have access to local provision within reasonable travel distances, while enabling us to continue to allocate the great majority of overall funding based on pupils' characteristics to direct resources to those that evidence suggests require the greatest level of extra support.

We do not propose changing local flexibilities regarding the sparsity factor, outlined in section one, in 2022-23. This is in recognition of the need to transition to a hard NFF smoothly. Furthermore, we do not propose changing local authorities' ability to make disapplication requests regarding sparsity distances in 2022-23. While local authorities would no longer need to submit requests for schools where road distances would have been significantly higher than those measured 'as the crow flies', they will be able to submit evidence to request to change the distance for a school where they believe it should be significantly higher than those that we provide by the road. We are not expecting this to be necessary, but recognise the merit in keeping the option for such requests open while moving to the new measure.

In addition, local authorities will still be able to provide more for very small sparse secondary schools as per the schools revenue funding operational guidance. We are considering how additional sparsity funding for particularly small and/or particularly remote schools, which evidently and objectively warrant greater support beyond maximum sparsity values, could be implemented in the national formula in future years, beyond 2022-23. We welcome any early views on this.

Q2a. Do you agree with our plan to measure sparsity distances by the road?

Strongly agree, Agree, Disagree, Strongly Disagree, Unsure.

Q2b. Do you agree with our plan to maintain the same sparsity factor distance thresholds as in 2021-22?

Set higher thresholds, These are the right thresholds, Set lower thresholds, Unsure.

Q2c. Do you agree with our proposed increase to the primary and secondary maximum sparsity factor values of £10,000?

Allocate a higher amount, This is about the right amount, Allocate a lower amount, Unsure.

Q2d. Do you have any further comments regarding the design of the schools NFF sparsity factor from 2022-23?

Section 4. Measuring sparsity distances by the road

This section describes the methodology that we have used to calculate sparsity distances by road journeys in more detail.

Sparsity distances are currently calculated using straight-line, or ‘as the crow flies’, distances from pupils’ postcodes to schools’ postcodes. School and pupil data, including postcodes, is provided to us through regular autumn census returns and Get Information About Schools (GIAS) (Annex B.1) and used to calculate funding allocations (Annex C). As postcodes tend to cover a number of different properties, we use postcode ‘centroids’ to set the specific points that are measured to and from 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). We then, for each school, identify the pupils who live nearest to it and for whom it is compatible, and calculate the average distance to their second nearest compatible schools. This is each school’s sparsity distance.

We propose calculating sparsity distances by the shortest distance by the road from schools’ properties – not the centroid of their postcode, as at present – to pupils’ postcodes. Where schools’ properties cannot be exactly identified (see paragraph on UPRNs below), we propose reverting to measuring from schools’ postcodes to pupils’ postcodes, by the shortest road distance. We would continue to use the same school and pupil-level data as at present. This is except for the omission of some pupil-level data necessitated by the new methodology, which would have been included in the existing methodology (explained on page 15). A school’s sparsity distance would still be based on the average distance from nearest pupils’ postcodes to second nearest compatible schools. The only component we are proposing to change and seeking to improve is the method to calculate distances.

The new method involves us calculating actual distances from two points on the road network that are closest to schools’ properties or postcodes and pupils’ home postcodes. We consulted with the national mapping agency, Ordnance Survey (OS), about data to enable us to achieve this, and have used one OS dataset on addresses and one on the road network (see Annex B.1 for more information). To identify the points on the road network, we firstly have to identify schools’ and pupils’ locations on a map. To do this we cross-reference geographic data from the school census and GIAS with the OS address data.

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 the coordinates of their postcode centroids, which can be more or less further 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 [webpage](#) includes information on how schools can check their UPRNs and correct them if necessary.

For pupils, we locate the closest building to the coordinates of their home postcode centroids. This is the same point that we measure to at present. Locating the building is a necessary additional step to enable us to determine the correct road to route from. Using pupils' postcode centroids, rather than full addresses and actual properties (as for most schools), enables us to minimise sensitivity of data used. Measuring to pupils' full home addresses would be unlikely to affect a school's sparsity eligibility (as sparsity distances are averages) and sparsity distances are proxies of remoteness, so in this case postcode centroids are sufficient and use of pupils' full home addresses would be unjustified. We have not included 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 which we are unable to calculate a road distance for. And, in few cases, we are unable to locate pupils' postcodes in the mapping database, which is likely to be because they have been taken out of service. Roughly 0.3% of postcodes are omitted for one of these two reasons.

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 schools to the nearest point on a road to pupils, excluding footpaths. We have not factored in 'no-right turns' which would have had high additional complexity for, we think, limited impact – particularly in rural areas where sparse schools are most likely to be. Furthermore, we have treated 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). We have also assessed this to have a limited impact on sparsity distances and eligibility and to be suitable given sparsity distances are a proxy of remoteness. The complexity associated with factoring in 'no-right turns' or one-way streets could have resulted in the road distance measure not being ready in time to consult on for the 2022-23 NFF. If you foresee this causing particular issues, we welcome you letting us know of these in response to question 3a which we can consider in the design of the distance measure going forward.

Once we have calculated road distances, we calculate schools' sparsity distances in the same way as now: 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 distance thresholds of three miles (for secondary schools) or two miles (for all other schools), to determine whether the school is remote.

For the purpose of this consultation we have calculated new sparsity distances by the road (see the 'sparsity consultation data tables' spreadsheet for a full list) using data collected via the autumn (October) 2019 school census. This is so that new distances, by the road, can be compared with existing distances, 'as the crow flies', which were used for 2021-22 NFF allocations. These distances are illustrative and will not inform funding allocations. Rather road distances would be recalculated for the 2022-23 NFF based on up-to-date school- and pupil- level data in the autumn (October) 2020 school census. It is possible that a school is identified as being eligible for sparsity funding in the illustrative data tables published alongside this consultation, but not in the 2022-23 NFF due to one or a number of reasons why a school's sparsity distance can change year on year outlined on page 7. Nonetheless, this is a good indication of the scale of the changes we are proposing in this consultation and how many and which schools would have been eligible for sparsity funding had we measured distances by the road in the 2021-22 NFF.

We have rigorously quality assured the methodology and outputs published alongside this consultation. Should you however identify a sparsity distance for a school that you would have expected to be significantly different by the road, we welcome you letting us know in response to question 3a.

Q3a. Do you have any comments on our methodology to calculate sparsity distances by the road?

Q3b. We welcome any additional comments about our proposals and our equalities impact assessment (Annex D), including any evidence, examples, or data of possible equalities impacts of the proposals.

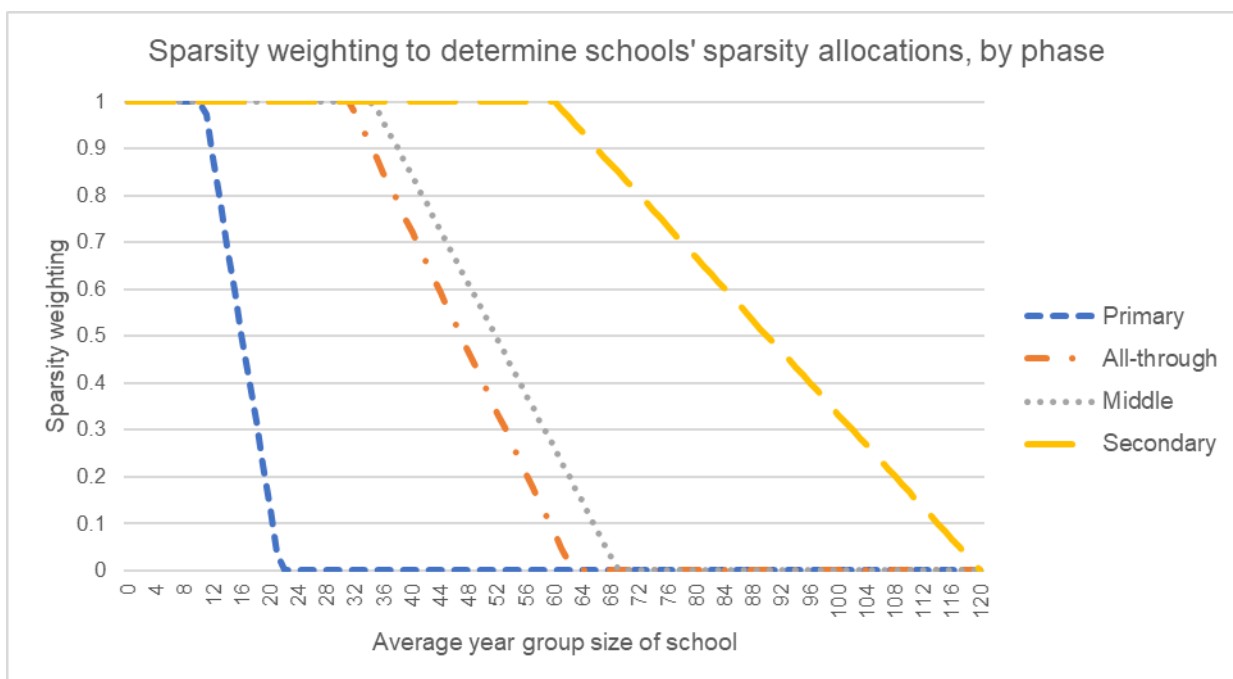
Annex

A. Sparsity factor weighting

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

The sparsity weighting for schools with an average year group size of half the year group threshold or less is 100%. These sparse schools receive the full sparsity sum (£45,000 for sparse primaries, £70,000 for sparse secondaries, middle and all-through schools, in the 2021-22 NFF).

The sparsity weighting for schools with an average year group size greater than half the year group threshold but less than the year group threshold is between 99% and 1% (see diagram below). For example, a sparse school with an average year group size that is three quarters of the threshold attracts sparsity funding of half the maximum. The smaller a school's average year group size, the larger their sparsity weighting and proportion of the maximum sparsity sum they are eligible for.



Source: Schools block national funding formula: technical note October 2019

Local authorities can mirror the NFF's sparsity weighting calculation in local funding formulae, or use a 'continuous taper' or a 'fixed amount'. In the former, a school with an average year group size of exactly half the year group threshold would receive 50% of the maximum sparsity value, compared to 100% under the NFF's weighting. Schools with an average year group size of less than half of the year group threshold would

receive between 50% and 100% of the maximum value – the smaller the school the greater the allocation. The alternative ‘fixed amount’ weighting involves providing each sparse school the same amount through the sparsity factor. A third of local authorities that used a sparsity factor in 2020-21 opted to use one of these two weightings in their local funding formulae – half used the continuous taper, half the fixed amount.

B. Technical detail underpinning the sparsity road distance measure

B1. Data inputs

The new sparsity distance methodology has required two Ordnance Survey (OS) datasets to be used to enable distance calculations by the road. The first is 'AddressBasePlus'⁶ which enables properties to be located on a map with a variety of geographical information including UPRNs and postcodes. The second is the 'MasterMap Highways Network'⁷ which is a road network dataset which enables us to compute distances between schools and pupils via roads. Both were available under the Public Sector Geospatial Agreement (PGSA) between OS and the public sector⁸.

The new sparsity distance methodology uses the same school- and pupil- level data as at present for the 'as the crow flies' methodology. School data includes information about the school itself, e.g., its name, unique reference numbers and phase, collected via the school census, and geographic information collected via GIAS. The latter includes a school's UPRN (Unique Property Reference Number), postcode and co-ordinates (easting, northing). The former is provided to us by local authorities on behalf of maintained schools or by academy trusts on behalf of academies, and the latter is updated by schools themselves.

Pupil-level data includes anonymised information about pupils – their school year and gender – and home postcodes, all of which are collected via the school census. 'Home postcodes' are necessary to calculate distances and 'school year' and 'gender' are necessary to check for school compatibility. Using home postcodes rather than full addresses reduces the sensitivity of the data being used. Pupil-level data is taken from the regular autumn school census, provided by local authorities on behalf of schools and pupils.

Where a pupil's home postcode only includes Scottish or Welsh addresses it is omitted from the sparsity distance calculation. This is because the schools NFF calculates funding for schools in England, and pupils living in Scotland or Wales might have a closest or second closest school which is not in England, which we would be unable to calculate a distance to.

⁶ [Ordnance Survey Address Base Plus](https://www.ordnancesurvey.co.uk/business-government/products/addressbase) (https://www.ordnancesurvey.co.uk/business-government/products/addressbase)

⁷ [Ordnance Survey Master Map Highways Network](https://www.ordnancesurvey.co.uk/business-government/products/mastermap-highways-information) (https://www.ordnancesurvey.co.uk/business-government/products/mastermap-highways-information)

⁸ [Ordnance Survey Public Sector Geospatial Agreement](https://www.ordnancesurvey.co.uk/business-government/public-sector-geospatial-agreement) (https://www.ordnancesurvey.co.uk/business-government/public-sector-geospatial-agreement)

B2. Compatible schools

Selective grammar schools are not considered when identifying secondary pupils' second nearest compatible secondary schools because if their nearest schools were to close, they would not necessarily be able to attend the grammar school instead. Faith schools are included as they can only select a proportion of children on faith grounds when oversubscribed, so will typically be a viable alternative option.

B3. IT programme used to calculate distances

To calculate the sparsity road distances, we are using a PostgreSQL database and its associated geospatial analysis functionality. All data processing is undertaken internally and there is no third-party data sharing as part of the calculation process. We considered a third-party routing tool, such as Google Maps, but this would have required pupil postcode data to have been shared outside of the Department. Additionally it would have been a solution which we had far less control over financially or methodologically.

C. Lawful basis for collecting and using pupil data

The Department for Education (DfE) has a lawful basis for collecting and using data required to calculate sparsity distances under the Education Act 1996, School Standards and Framework Act 1998 and The School and Early Year Finance (England) Regulations 2021, for the specific and limited purpose of calculating school and local authority funding – in this case, to consult on changes to funding arrangements. The DfE's Information Charter sets the standards to be expected when DfE handles personal data.

Use of pupil-level data for this purpose should be made clear in schools' and local authorities' privacy notices, which explain how personal data is collected and used. Privacy notices should also detail how under The General Data Protection Regulation (GDPR) parents and pupils have the right to request access to information about them that we hold. More information is available at: [Data protection: how we share pupil and workforce data - GOV.UK \(www.gov.uk\)](https://www.gov.uk/data-protection-how-we-share-pupil-and-workforce-data).

Furthermore, under GDPR we were legally required to complete and receive approval for a Data Privacy Impact Assessment to assess privacy risks and liabilities when processing personal data to calculate new sparsity distances.

D. The Public Sector Equality Duty

The Equality Act 2010 identifies the following as protected characteristics for the public sector equality duty:

- Age
- Disability
- Gender Reassignment
- Pregnancy and Maternity
- Race (including ethnicity)
- Religion or belief
- Sex
- Sexual orientation

Under Section 149 of the Equality Act 2010, the Secretary of State is under a duty to have due regard to the need to:

a. eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under the Equality Act 2010;

b. advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it, in particular the need to:

- remove or minimise disadvantages suffered by persons who share a relevant protected characteristic that are connected to that characteristic;
- take steps to meet the needs of persons who share a relevant protected characteristic that are different from the needs of persons who do not share it;
- encourage persons who share a relevant protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low.

c. foster good relations between persons who share a relevant protected characteristic and persons who do not share it, in particular the need to:

- tackle prejudice, and
- promote understanding.

Consideration of the protected characteristics identified in the Equality Act 2010

This is an assessment, pursuant to the public sector equality duty, of the potential impact of these proposals. The Equality Act 2010 identifies eight protected characteristics, as set out above.

Our provisional assessment of the impact of these proposals on each protected characteristic is set out below. We have assessed the impact on children most likely to be affected by these proposals, within each protected characteristic, which is those living in rural areas. We will continue to collect data on the impact of these proposals, including quantitative data and from feedback received in response to this consultation, to build on this assessment.

- **Age:** no impact of these proposals is considered likely in relation to this protected characteristic. Sparsity funding will continue to be allocated fairly across all phases and we are proposing to increase the maximum sparsity factors by the same amount across all phases.
- **Disability:** these proposals are likely to have a positive impact on this protected characteristic. This is because sparsity funding will continue to support the viability of small schools in rural areas, which in turn helps to mitigate the risk of pupils having to travel unreasonably long distances to their next closest school. Access to local education is beneficial for all children, and is likely to be particularly so for pupils for whom long travel distances to school would be additionally challenging due to disabilities (e.g., physical disabilities).
- **Gender reassignment:** no impact of these proposals is considered likely in relation to this protected characteristic.
- **Pregnancy and maternity:** these proposals are likely to have a positive impact on this protected characteristic because access to local education mitigates the risk of having to travel long distances to a school, which could be particularly challenging for those who are pregnant or on maternity leave.
- **Race:** these proposals are likely to have more of a positive impact on some groups within this protected characteristic more than others. The 2011 census reports that “people from the Gypsy or Irish Traveller ethnic group (24.7%), and people identifying as White British (21.8%) or White Irish (10.0%) were most likely to live in a rural location”, whereas “people from Pakistani (99.1%), Bangladeshi (98.7%), and Black African (98.2%) backgrounds were most likely to live in an urban location”. A lower proportion of pupils from ethnic groups most likely to live in a rural location achieve expected progress across a number of

assessment metrics than the national average e.g., 43% and 42% of Gypsy/Roma and Irish Traveller respectively met the expected standard in phonics in year 1; pupils from the White British ethnic group made lower than average progress between 11 and 16 years old, measured by 'Progress 8'⁹. Improved financial support for schools in rural areas could in turn help to support the progress of such pupils.

As well as this possible positive impact, it is important to note that the proposals will not negatively impact pupils from ethnic groups that are less to be living in such areas. This is because the national funding formula will continue to direct money where additional resource is most likely to be required, and a significant percentage (17% in 2021-22) of overall funding will continue to be distributed on the basis of proxies of additional need, such as deprivation and low prior attainment, which a greater proportion of pupils in urban areas meet.

- **Religion or belief:** these proposals are likely to have a positive impact on this protected characteristic. This is because a significant proportion of rural schools are designated as Church of England or Catholic, so providing such schools extra financial support supports viability of local provision, including local faith-based provision.
- **Sex:** these proposals will not impact this protected characteristic. Sparsity distances will continue to be the average distance to a school's closest pupils' second closest *compatible* schools, which avoids assuming children could attend any of their nearby schools where this is not the case e.g., single-sex schools.
- **Sexual orientation:** no impact of these proposals is considered likely in relation to this protected characteristic.

We have also assessed the impact of these proposals on pupils from disadvantaged socioeconomic backgrounds. While small and remote schools have, on average, a lower proportion of pupils that meet proxies of additional need in the NFF compared to schools that are not small and remote, 11% of pupils across all small and remote schools in the 2021-22 NFF were eligible for FSM (compared to 17% of pupils across all other schools). Nonetheless, we have considered this statistic when designing these proposals and tried to come up with proposals that better support small, remote schools in an affordable way without resulting in less funding for proxies of additional need, including indicators of deprivation. We have tried to achieve this in two ways:

⁹ [Gov.uk data on pupils' results](https://www.ethnicity-facts-figures.service.gov.uk/education-skills-and-training) (https://www.ethnicity-facts-figures.service.gov.uk/education-skills-and-training)

- By providing additional support to small, remote schools, using an improved measure of remoteness, this extra funding is targeted to those most likely to face particular pressures and where second closest schools are furthest away; and
- Proposing to increase factor values by £10,000 will provide significant support for each individual, eligible school, but at an overall additional cost that will not necessitate reductions to other factor values, such as those for pupils meeting indicators of deprivation or low prior attainment.

Overall, these proposals provide a significant amount of additional support to small, remote schools, which is likely to, as indicated by this equalities impact assessment, have beneficial consequences for pupils with protected characteristics as well as pupils living in rural areas at large. And because we are proposing to achieve this in a targeted way, funding allocated on the basis of pupils' characteristics – no matter where pupils live – will not be impacted and the NFF will continue to allocate a significant proportion of funding on the basis of proxies of additional need.

E. Confidentiality

Information provided in response to consultations, including personal information, may be subject to publication or disclosure under the Freedom of Information Act 2000, or the Environmental Information Regulations 2004.

If a request for disclosure of the information you have provided is received, your explanation about why you consider it to be confidential will be taken into account, but no assurance can be given that confidentiality can be maintained. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.

The Department for Education will process your personal data (name and address and any other identifying material) in accordance with the Data Protection Act 2018 and the UK GDPR, and in the majority of circumstances, this will mean that your personal data will not be disclosed to third parties.

Would you like us to keep your responses confidential?

Yes, No

If you want all, or any part, of a response to be treated as confidential, please explain why you consider it to be confidential.



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