



Title: **Needs & Redistribution Technical Working Group**

Paper: NR TWG 16/27 Proposal to Simplify Needs Formula by Removing Tier Level Aggregation of Formula, by Geoffrey Winterbottom, SIGOMA.

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Proposal to Simplify Needs Formula by Removing Tier Level Aggregation of Formula.

This paper uses as its reference point the needs formula created as part of the 2013-14 Settlement Funding Allocation.

The Four Block System and Funding Adjustments to Formula

In 2013 DCLG relied on the “four block model” to set relative shares. These have been used to apportion Settlement Funding from 2013-14 to date. In 2013 the Blocks and their values were:

| Block | Description | 2013-14 Total amount England £'000 | 2013-14 Barnsley Amount £'000 |
|----------------------------------|---|---|--|
| Grants rolled in | Grants made on a bespoke, authority by authority basis, not linked to formula ¹ | 2,001,763 | 8,500 |
| Basic amount | Grant based on the lowest per head tier allocation from formula. A mix of Basic needs less Basic resource | 9,986,702 | 32,366 |
| Needs equalisation amount | Grant based on each authority's formula share above the basic amount. Fixed at tier level | 16,779,276 | 77,786 |

¹ Of which: Supporting people - £1,620m, AIDS grant - £215m, Local Transport Services grant - £80m, others under £50m - £87m

| | | | |
|--|--|-------------------|----------------|
| Resource equalisation amount | Deduction based on each authority's relative size of council tax base. The deduction is used to increase the Basic amount and Needs equalisation amount. | -6,549,983 | -16,558 |
| Formula amount shared between English authorities | | 22,217,758 | 102,094 |
| Police Home Office grant and Isles of Scilly | | 4,500,776 | |
| | Total in 2013-14 Formula model | 26,718,534 | |

Since 2013, other grants have been added, on a bespoke basis though only one, Council Tax Support grant, has been subsumed into formula. Moreover in 2013 damping and transition grant were used to adjust final formula allocations and there was a negative adjustment for LACSEG. This paper takes no account of those changes.

Formula elements used in Needs and Basic Amount Allocations

The Basic Amount and the Needs Equalisation amount both derive from the same sets of indicator data (some with subsets and all with weightings)

- Children's Services
- Adults' PSS
- Highway Maintenance
- County-Level EPCS
- Concessionary Travel
- Continuing EA Levies
- District-Level EPCS
- Other Flood Defence
- Coast Protection
- Fixed Costs
- Capital

Individual authority Needs indicators (per 10,000,000,000) were calculated for each of the above factors, which DCLG allocated into either an upper or lower tier category, as illustrated below.

Use of Tiers to Set Relative Allocations

Each authority had a value for each of the separate indicators above (illustrated in Step 1 in Table 1 below), which was aggregated to an authority level upper tier and a lower tier value (Step 2).

The following illustrative table is for Barnsley in 2013-14:

Table 1

| Barnsley Needs Equalisation Calculation | | | Source | Ref | Lower Tier | Upper Tier |
|--|---|---------------------|----------|-------------|--------------------|--------------------|
| Step 1 | 2013-14 Children's Services RNF per 10k million | Barnsley specific | a | | 0.0004344800 | |
| | 2013-14 Adults' PSS RNF | Barnsley specific | b | | 0.0010868900 | |
| | 2013-14 Highway Maintenance RNF | Barnsley specific | c | | 0.0000886347 | |
| | 2013-14 County-Level EPCS RNF | Barnsley specific | d | | 0.0002616542 | |
| | 2013-14 Concessionary Travel RNF | Barnsley specific | e | | 0.0000604440 | |
| | 2013-14 Continuing EA Levies RNF | Barnsley specific | f | | 0.0000002926 | |
| | 2013-14 District-Level EPCS RNF | Barnsley specific | g | 0.000389853 | | |
| | 2013-14 Other Flood Defence RNF | Barnsley specific | h | 0.000001234 | | |
| 2 | 2013-14 Lower/Upper -Tier RNF | Total a to h | i | | 0.000391087 | 0.001932396 |
| | 2013-14 Coast Protection RNF | | | | - | |
| | 2013-14 Fixed Costs RNF | Barnsley specific | j | 0.000003180 | | |
| | 2013-14 Mixed Tier EPCS RNF | | k | 0.000003180 | | |
| | 2013-14 Capital RNF | Barnsley specific | l | 0.000016362 | 0.000239574 | |
| | Total RNF for Barnsley | i+k+l | m | | 0.000410629 | 0.002171969 |

The above, tier level data was then converted to a Relative Need (RNF) per head value by dividing the above tier totals by the local population (step 3 below) (and multiplying by 1,000,000 to reduce the number of decimal places).

For each tier, the lowest authority RNF per head then became the “threshold” for allocating Basic Amount (step 4 and appendix A). The authority’s score above the threshold was its Needs score per head (step 5). Again, Barnsley’s result follows:

Table 2 Barnsley Needs Equalisation

| | | | Lower Tier | Upper Tier |
|---|--------------------------|----------|--------------------|--------------------|
| Barnsley Population | Barnsley specific | n | 235,097 | 235,097 |
| 3 RNF per head - lower /upper tier per head | $i / n \times 1,000,000$ | o | 0.001663513 | 0.008219567 |
| 4 RNF per head - lower /upper tier threshold (lowest) | lowest "o" in table | p | 0.001414434 | 0.004951120 |
| 5 RNF per head - lower /upper tier above threshold | o-p | q | 0.000249080 | 0.003268447 |
| RNF per head Mixed Tier | $k / n \times 1,000,000$ | r | 0.000013527 | |
| RNF Mixed tier per head threshold (lowest) | lowest "r" in table | s | 0.000002140 | |
| RNF Mixed tier per head above threshold | r-s | t | 0.000011387 | |
| RNF Capital per head | $l / n \times 1,000,000$ | u | 0.00006960 | 0.00101904 |
| RNF Capital per head threshold (lowest) | lowest "u" in table | v | 0.00000738 | 0.00000738 |
| RNF Capital per head above threshold | u-v | w | 0.00006221 | 0.00101166 |

It was only after aggregating all RNFs per head above the threshold (step 6 below) , and converting back to an RNF above the threshold (i.e. not per head) (step 7) that a relative allocation was made (steps 8-10) . Barnsley’s calculation follows:

Table 3 Barnsley Needs equalisation

| | | | | | | |
|------|---|-------------------------|-----------|-------------------|-------------------|---------------|
| 6 | Total of RNF per head above thresholds Barnsley | q+t+w | X | 0.00032268 | 0.00428011 | |
| 7 | Total of RNFs above threshold Barnsley | =n times X / 1,000,000y | | 0.00007586 | 0.00100624 | |
| 8 | England sum of all RNFs above threshold | sum of all Ys | z | 0.23341984 | 0.23341984 | |
| | Needs Equalisation £m Total | £ million. given | a1 | 16,779.276 | 16,779.276 | |
| 9-10 | Barnsley Needs Equalisation Share £m | y / z x a1 | b1 | 5.453 | 72.333 | 77.786 |

Problems with This Process

Note that calculation of the underlying needs indicators, weightings and adjustments preceded this process. The regression based calculation took place at a level below this calculation, providing the values in Table 1 above.

Setting basic amounts and needs amounts at tier level is not unfair and it does have some advantages for making generalised adjustments at tier level year on year which some may prefer. But for authorities it does obscure the connection between the services an authority provides and the amount of funding it receives.

We understand that, in the past, authorities may have preferred this approach as it made it less easy for government Departments to pressure authorities to spend funding in proportion to allocations but, in a scenario of 100% local finance, Councils may now consider themselves less beholden to other Departments to demonstrate they are maintaining spend in proportion?

An Alternative that Could *Directly* Link Service Need data to Funding?

We suggest there would be considerable improvement in understanding if authorities could easily trace their needs funding back to individual service areas or needs.

Would group members and DCLG support the setting of thresholds and amounts above the threshold at each of the individual service level headings?

For example, using the above data for Barnsley:

| | RNF | RNF per head x 1,000 | Threshold Lowest RNF per Head (say) | RNF PH above threshold | |
|-----------------------|--------------|----------------------|-------------------------------------|------------------------|---|
| Children's services | 0.0004344800 | 0.001848088 | 0.00110885 | 0.00073924 | a |
| Adults PSS | 0.0010868900 | 0.004623156 | 0.00277389 | 0.00184926 | b |
| Highways maint | 0.0000886347 | 0.000377013 | 0.00022621 | 0.00015081 | c |
| County epscs | 0.0002616542 | 0.001112963 | 0.00066778 | 0.00044519 | d |
| Concessionary Tr | 0.0000604440 | 0.000257103 | 0.00015426 | 0.00010284 | e |
| Continueing EA levies | 0.0000002926 | 0.000001244 | 0.00000075 | 0.00000050 | f |
| District epscs | 0.000389853 | 0.001658263 | 0.00033148 | 0.00132678 | g |
| Flood defence | 0.000001234 | 0.000005250 | 0.00000105 | 0.00000420 | h |
| Fixed costs | 0.000003180 | 0.000013527 | 0.00000270 | 0.00001082 | i |
| Capital | 0.000255936 | 0.001088639 | 0.00081648 | 0.00027216 | j |

| | | | | | | |
|--|----------------|--|--|--|-----------------|---|
| Total of all RNFs per head above threshold | Sum a to j | | | | 0.004901794 | K |
| Total of RNFs above Threshold | k x pop/ 1mill | | | | 0.00115240 | l |
| Sum of all all RNFs above threshold (say) | All councils | | | | 0.24858498 | m |
| Allocation of £16,779m | x l/m | | | | £77.786m | |

In the illustration we have forced the allocation to Barnsley to equal the actual 2013 allocation by amending the "Sum of all RNFs" (m above). We haven't the resource to actually work out what the impact would have been but perhaps DCLG could rework the 2013 tables?

A similar table could be built for the Basic Amount allocation. An illustration is attached at appendix A.

Though the tables do initially still appear quite complex it is now a relatively simple matter to determine how much of an authority's allocation has been attributed to each service. For Barnsley children's services (say) using the above needs table and the basic amount table at appendix A this would be:

| | | |
|-------|---|---------|
| | | £m |
| Needs | $0.0073924/0.004901794 \times \text{£}77,786\text{m}$ | £11,731 |
| Basic | $0.00110885/0.00608345 \times \text{£}32.66\text{m}$ | £5,953 |
| | | £17,684 |

It should also be simple, if all figures are published, to see nationally how much has been attributed to each of the main service headings and "relatively" how each authority has fared on the various aspects of service delivery.

It should help to confirm to authorities that "unmet need" i.e. need indicators without actual spend by the authority, are being financed (provided the "need" in question is included in the underlying measures for the authority).

Note this does not prevent DCLG allocating shares according to tiers. For example it can be seen in table 1 that there is a District and County Level EPCS.

Geoff Winterbottom

SIGOMA

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Appendix A

Basic Amount allocation

| | | Threshold Lowest RNF per Head | |
|---|----------------------------|--|---|
| Children's services | | 0.00110885 | a |
| Adults PSS | | 0.00277389 | b |
| Highways maint | | 0.00022621 | c |
| County epcs | | 0.00066778 | d |
| Concessionary Tr | | 0.00015426 | e |
| Continuing EA levies | | 0.00000075 | f |
| District epcs | | 0.00033148 | g |
| Flood defence | | 0.00000105 | h |
| Fixed costs | | 0.00000270 | i |
| Capital | | 0.00081648 | j |
| Total of all RNF ph Thresholds | Sum a to j | 0.00608345 | K |
| Sum of all councils RNFs above threshold (say) | | 0.24858498 | l |
| Needs threshold Barnsley | £16,779 x k ÷ l | 410.62 | m |
| | | | |
| Taxbase thresholds | | 0.21507 | n |
| Total all resource above threshold | 5,368.948 | | o |
| Resource equalisation total | -6,549.98 | | p |
| Resource adjustment p ÷ o x n X 1million | | -262.37 | |
| | | | |
| Net of needs and resource | | 148.25 | q |
| Threshold x population ÷ 1million | | 34.85 | r |
| Sum of all thresholds (say) | | 10,656.2 | s |
| Basic amount total £m | | 9,986.70 | t |
| Barnsley share t x r ÷ s | | 32.66 | u |

The calculation here might be better published as two distinct "allocations"

| | Needs element | | Resource adjustment |
|---|------------------|---|------------------------|
| Thresholds per head (above) | 410.62 | a | -262.37 |
| Population | 235,097 | b | 235,097 |
| Threshold totals a x b /1,000,000 | 96.54 | c | -61.68 |
| Aggregate of all councils thresholds | 10,656.2 | d | 10,656.2 |
| Total to be allocated | £9,986.7m | e | £9,986.7m |
| Authority share (e x c ÷ d) | £90.47m | f | £-57.81m |
| Net impact (combined "f"s) | £32.66 | | |
| | | | |