



Basic Need Allocations 2019-2020

The Aqua Book guidance on producing quality analysis for government - How the model meets the guidelines

This document provides information on the quality assurance processes applied to the model used to calculate basic need funding for local authorities and on how these processes meet the guidelines set out in the Aqua Book guidance, on producing quality analysis for government.

Model name and description

Basic need funding allocations - Spreadsheet calculations.

Description

The model is used to calculate annual allocations of basic need funding to local authorities for the provision of school places. The latest model calculated allocations for financial year 2019-20 with funding totalling £980 million. The key data input is the 2016 School Capacity Survey (SCAP) which the Education Funding Agency conducted to collect data from local authorities for each primary and secondary planning area on current school capacity and forecast pupil numbers.

The principle of the calculation is to:

1. determine each planning area's shortfall which is the difference between forecast pupil numbers and future school capacity then sum these shortfalls for each local authority;
2. multiply these shortfalls by a rate per place - which is weighted for primary and secondary places and takes account of regional differences – to generate each local authority's allocation.

A number of adjustments take place within this calculation. For example, the future capacity includes additional school places in local authorities which will be made available through central capital programmes (e.g. Targeted Basic Need, free schools) but which are not yet shown in the SCAP returns. To avoid double funding, the allocations account for previous basic need funding provided. The allocations also recognise the difference in costs associated with location and phase (primary/secondary).

Why the model is business critical

The model distributes capital funding to local authorities totalling approximately £1bn this year.

Summary of quality assurance

The development of the funding policy and model were overseen by a Steering Group chaired by the Senior Responsible Officer (SRO) with the quality assurance process overseen by the analytical assurer. There were the following strands to the quality assurance:

- Policy decisions and assumptions: The SRO signed off the decision/assumptions log and the model technical specification with the analysts demonstrating where each decision was applied in the model;
- Data inputs: The analytical team worked with data suppliers so that the data suppliers understood how their data was used in the model and the analytical team were aware of any data limitations. Data inputs were sense checked for internal consistency and against data from previous years. The relevant senior civil servant who owned the input data also signed-off the data with an accompanying statement which described their own QA processes, known issues, their approach to resolving those known issues and any residual risks;
- Validation: Analysts talked through the whole model with the policy leads to show that they had correctly applied the methodology; the analytical team assessed changes in the allocations since last year to understand what drove the changes; and an independent analyst performed sense checks on the model to ensure that it reflected the intended methodology;
- Verification: The lead model developer undertook a variety of technical checks to ensure the model works as intended. An independent analyst from outside the team built their own model using the agreed technical specification. The intermediary calculations and final allocations of the two models fully reconciled to the nearest penny; and
- Scrutiny: An independent analyst peer reviewed the final model tracking the calculations through from data inputs to the final allocations. The model was scrutinised by the policy team, Analytical Assurer, Chief Analyst and model SRO all of whom signed-off the model. The final level of sign-off was the relevant Director General and Chief Executive of the Education Funding Agency.

The model was not externally peer reviewed by someone from outside of the Department for Education. However, the second model was built by a senior modeller from outside of the allocations team.

Neither the model nor the QA plan were subject to a formal internal/external audit. However, both drew heavily on the previous year's work which had been subject to review by Internal Audit, the outcome of which was the top rating – adequate and effective.

Approach to Quality Assurance

Element of quality assurance	Undertaken
Developer Testing	Yes
Internal Peer Review	Yes
External Peer Review	No
Use of Version Control	Yes
Internal Audit	No
Quality Assurance guidelines	Yes
External Audit	No
Governance	Yes
Transparency(published results)	Yes
Periodic Review	Yes

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