



Priority School Building Programme 2

Macpherson review of quality assurance of Government analytical models - How the model meets the guidelines

This document provides information on the quality assurance processes applied to the model used to identify the successful bids to the Priority School Building Programme 2 (PSBP2) and on how these processes meet the guidelines set out in the [Macpherson review of quality assurance of Government analytical models](#).

Model name and description

Priority School Building Programme 2 - SQL and Spreadsheet calculations

Description

The purpose of the model is to identify the school buildings (blocks) that are in the worst condition from those that have put in a bid to the PSBP2 programme. The Property Data Survey (PDS) is the main input into the model as it provides information on the condition of schools in England.

The model is predominantly built in SQL. It does the following:

Ranks the individual school blocks that have been applied for through the programme according to their condition need per square metre.

Includes a small number of projects which do not rank highly enough to make the programme based on 'per metre' condition but which have very high levels of poor condition across the whole block.

Applies a minimum project threshold of £250,000 for primary and special schools and £500,000 for secondary schools.

For those projects where technical advisers have confirmed the existence of significant and urgent structural or asbestos related issues, a number are funded either on the basis of the per square metre methodology or high total need. For the remainder we have carried out an additional test - if there is a serious structural issue which needs addressing, and which can only sustainably be addressed by rebuilding the block, the block should be included in the programme.

Identifies which blocks will be funded within the programme budget.

Why model is Business Critical

It identifies which school buildings are eligible for inclusion in the PSBP2 programme which has a budget of around £2bn.

Summary of Quality Assurance

The development was overseen by a project team and by the Senior Responsible Officer (SRO) who signed off the design, approach and assumptions. There were three strands to the Quality Assurance -

- Technical checks - e.g. Sense checks, unit testing, logic testing and code review.
- Parallel model build - The project SRO and steering board agreed a full technical specification for the model. Two analysts (the principal modeller and an independent modeller) independently built their own models based on the specification, and the results were checked to ensure that identical allocation amounts were obtained. Any differences which could not be immediately reconciled were put back to the project SRO and steering group to agree an approach.
- Sign off meetings - This included talking the Department's Chief Analyst through the model; walking through the process, from the raw data to the final allocation, with an EFA deputy director; a meeting with the project SRO to scrutinise our approach and another meeting with the Permanent Secretary, Chief Analyst and relevant directors to scrutinise our approach.

The model did not go through internal or external audit. One of the principal aims of such an audit would be to verify that the methodology is accurately translated into the model outputs. The independent parallel build also performs this function.

Approach to Quality Assurance

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