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Title: *Using M-quantile models as an alternative to random effects to model the contextual value-added of schools in London*

Abstract: The measurement of school performance for secondary schools in England has developed from simple measures of marginal performance at age 16 to more complex contextual value-added measures that account for pupil prior attainment and background. These models have been developed within the multilevel modelling environment (pupils within schools) but in this paper we propose an alternative using a more robust approach based on M-quantile modelling of individual pupil efficiency. These efficiency measures condition on a pupils ability and background, as do the current contextual value-added models, but as they are measured at the pupil level a variety of performance measures can be readily produced at the school and higher (local authority) levels. Standard errors for the performance measures are provided via a bootstrap approach, which is validated using a model-based simulation.

Working Paper:

<http://repec.ioe.ac.uk/REPEc/pdf/qsswp1011.pdf>