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*Executive Summary of*

# Comparing Value-Added Models for Estimating Individual Teacher Effects on a Statewide Basis

Simulations and Empirical Analyses

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**COMPARING VALUE-ADDED MODELS FOR ESTIMATING INDIVIDUAL  
TEACHER EFFECTS ON A STATEWIDE BASIS:  
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**Executive Summary**

Many states are currently adopting value-added models for use in formal evaluations of teachers. We evaluated nine commonly used teacher value-added models on four criteria using both actual and simulated data. For the simulated data, we tested model performance under two violations of the potential outcomes model: settings in which the single unit treatment value assumption was violated, and settings in which the ignorability of assignment to treatment assumption was violated. The performance of all models suffered when the assumptions were violated, suggesting that none of the models performed sufficiently well to be considered for high stakes purposes. Patterns of relative performance emerged, however, which we argue is sufficient support for using four value-added models for low stakes purposes: the three-level hierarchical linear model with one year of pretest scores, the three-level hierarchical linear model with two years of pretest scores, the Educational Value-Added Assessment System (EVAAS) univariate response model, and the student fixed effects model.

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