# The Impact of *Math Pathways and Pitfalls* on Students' Mathematics Achievement

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## Executive Summary

This study assessed the impact of *Mathematics Pathways and Pitfalls* (*MPP*) on students' mathematics learning. The main research questions were: (a) What is the impact of *MPP* on students' knowledge of the mathematics topics addressed, compared to students using the regular math curriculum? and (b) How equitable is the impact of *MPP* on students' mathematics knowledge across levels of English language proficiency? A cluster-randomized experimental design was implemented in five school districts. Second, fourth, and sixth-grade teachers were randomly assigned to either an experimental or control group. The experimental teachers were taught how to implement *MPP* and then substituted *MPP* for part of their regular mathematics curriculum during the academic year. Ninety-nine teachers and 1,971 students participated. Multilevel statistical models were used to analyze the mathematics achievement data. Student performance in *MPP* classes was higher than in non-*MPP* classes for all three grades. The effect size statistics (ES) for second and fourth grade were .43 and .66, respectively. For sixth grade, *MPP* had a greater effect for ELL students ($ES = .74$) than non-ELL students ($ES = .28$).

Heller, J. I., Curtis, D. A., Rabe-Hesketh, S., & Verboncoeur, C. J. (2007). The effects of "Math Pathways and Pitfalls" on students' mathematics achievement: National Science Foundation final report (ED498258). Retrieved July 6, 2009, from Education Resources Information Center (ERIC) database: http://www.eric.ed.gov/ERICWebPortal/contentdelivery/servlet/ERICServlet?accno=ED498258