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## Breaking the link between poverty and low student achievement: An evaluation of Title I $\stackrel{\sim}{\succ}$

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## Abstract

This study provides an evaluation of the impact of Title I funding of compensatory education programs on school finance and student performance in New York City public schools during the 1993, 1997 and 2001 school years. Estimates based on a regression-discontinuity approach indicate that the program was unsuccessful in improving student outcomes in high-poverty schools in New York City during this period, and may in fact have had adverse effects during the earlier years in our sample. Less evidence of a negative effect is found for the 2001 school year. These findings are related to the way in which the federal funds were spent.

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## 1. Introduction

Title I of the Elementary and Secondary Education Act of 1965, represents the largest federal program for K-12 education.<sup>1</sup> It currently provides more than \$12 billion in annual financial assistance to state and local education agencies for the expansion and improvement of instructional programs to meet the special needs of low-achieving students from schools with high concentrations of poverty. The goal of Title I financed supplementary educational services in reading and mathematics is to help overcome an inferior educational environment associated with growing up in a low-income family and attending schools with high concentrations of disadvantaged students.

Most studies of its effectiveness have indicated that Title I has not fulfilled its original expectation of closing the achievement gap between economically disadvantaged students and their more advantaged peers. Partly in

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<sup>&</sup>lt;sup>1</sup>Even though the program has alternatively been named Title I by Democratic administrations and Chapter I by previous Republican administrations, throughout the paper I simply refer to it as the Title I program.

response to these findings, the 1994 Improving America's Schools Act, which reauthorized the program, introduced several changes in the funding and operation of Title I compensatory education services. Further reforms were introduced in its most recent reauthorization as part of the No Child Left Behind Act of 2001, which was signed into law at the beginning of 2002.

This study provides a new evaluation of the impact of Title I funding on school finance and student performance at public elementary and secondary schools in New York City, the largest school district in the country. How, and to what extent, has Title I funding made a difference for New York City's schools and students? How have the recent changes in this federal program affected school spending decisions and school performance? How is the effectiveness of Title I school programs related to the way Title I funds are spent? To investigate these issues, this study uses unique school and grade level data on student performance, student backgrounds and school budgets of New York City public schools during the period 1993–2001.

The analysis differs from earlier evaluations of Title I in several important respects. First, it proposes and implements an evaluation method that better addresses the non-random allocation of funds and services. In comparing average achievement test scores of students and schools receiving Title I services or funds with those who do not, existing evaluations of Title I programs do not (or not sufficiently) account for the non-random selection of students and schools for participation in the program, so that corresponding impact estimates are likely to be biased. Even in the absence of any impact of Title I services we would not expect students in Title I schools (which are selected because of their high poverty rates) to perform as well as students in schools not receiving Title I funds. Similarly, without remedial education we would not expect participating students within a Title I school, who were selected for such services based on their past performance, to perform equally well as the other students in the school. This study adopts a regression-discontinuity approach which better accounts for this selection problem. More specifically, it exploits a discontinuity in the rule that determines Title I eligibility, where schools with poverty counts above the district average are eligible for Title I funds, while most other schools are not. While schools near the average will have comparable poverty counts, their Title I status will differ, which provides the basis of an RD evaluation of the impact of Title I on school performance.

Second, in contrast to most existing studies which aim to assess whether Title I has succeeded in narrowing the achievement gap, this study tries to answer the more relevant question of whether Title I enabled schools and students to perform better than they would have without Title I funding. Some evidence exists that in fact without the program, these students and schools would have fallen further behind. However, given the previously discussed concerns about the reliability of the methods used to obtain these results, the evidence to date on this true causal effect of Title I remains purely suggestive.

In evaluating the program's effectiveness, multiple outcome measures are considered, including grade retention, suspensions, school attendance, student mobility rates and a set of reading and mathematics test scores and gain scores. The impact estimates are then related to school budget data to assess how Title I funds were spent. Separate analyses for the 1992–1993, 1996–1997 and 2000–2001 school years provide a first indication of the impact of recent legislative changes in this program on New York City public schools.

The estimates indicate that Title I has been ineffective at raising student performance, and in fact appears to have had adverse effects during the 1993 and 1997 school years. Less evidence of adverse effects is found for 2001. The absence of an improvement in student performance is linked to the finding that Title I receipt actually does not translate into a statistically significant increase in per-pupil expenditures. This is partly due to the fact that Title I funds account for only a small proportion of per-pupil total expenditures, as well as to apparent crowding out effects. The estimation results are also consistent with the perceptions of many educators that common Title I funded remedial education programs have been ineffective.

The paper is organized as follows. The next section describes the Title I funding program. This is followed in Section 3 by a summary of earlier evaluations of the program's effectiveness and a description of the evaluation approach adopted in this study. Section 4 discusses the data set and presents the main empirical findings of the program's impact on student performance. Section 5 provides a sensitivity analysis and discusses the interpretation of the estimates. An analysis of school budget data and an assessment of the longer term impacts of Title I funding are presented in Section 6, while Section 7 concludes.

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