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Dissertation Abstract
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The Effects of Increased Resources on Disadvantaged Schools

Despite the existence of a large literature on the effects of school resources on student achievement, there is still no consensus on whether or how increased school funding affects students and schools. Much of the previous literature has focused on aggregate resources in school systems and has not directly addressed the effectiveness of additional funds targeted to the most needy schools and students. In my dissertation, I offer new evidence on this topic using a recent court ruling, one of the series of Abbott rulings, which dramatically increased funding for poor urban schools in New Jersey.

Abbott v. Burke was filed in 1981 by a group of students in poor, urban school districts in New Jersey, arguing that the state failed to provide these students with the constitutionally mandated "thorough and efficient" education. In 1997, after 16 years of litigation and legislative changes to school funding, the fourth ruling in the Abbott case required immediate "parity aid" to bring per-pupil regular education funding in 30 districts, known as the Abbott districts, to the level of funding in the wealthiest suburban districts. The Abbott finance reforms offer a unique opportunity to examine the question of whether money matters in K-12 education, and in particular, whether and how increased funding improves disadvantaged schools.

Chapter 1: The Effects of the Abbott School Finance Reform on Education Expenditures in New Jersey (Job Market Paper)

The Abbott IV decision, first implemented for the 1997-98 school year, funded the 30 Abbott districts at the level of the wealthiest suburban districts and has resulted in continued increased funding since that time. By suddenly changing the funding for some districts while leaving similar districts unaffected, this policy provides a natural experiment that can be used to identify the effects of increased state aid. The policy caused significant increases in per-pupil funding in the affected districts, ranging from $1000 per pupil in the early years to $1500 per pupil in recent years. This paper focuses on how districts utilize this significant increase in state funding. Does the money get passed to taxpayers through reduced local levies? Is the money targeted to specific uses within districts or are increases spread evenly over all district functions?

Using the funding induced by the court ruling as an instrument for state aid to school districts, I measure the uses of increased state aid. In specifications that control for unobserved differences across districts, I find that 60-70% of the increased funding passes through to increased school expenditures and that the rest is used to reduce local contributions to school revenues in Abbott districts relative to non-Abbotts. The extra funding is primarily spent on instruction; districts increased supplemental services for students and hired more teachers. The affected districts increase staffing in many areas but do not increase the number of classroom teachers in the core subjects of math and English in high schools. These results are important for predicting the likely results of future school funding reforms and for identifying the appropriate outcome measures for evaluating the effects of reforms on schools and students.

Chapter 2: New Evidence on School Funding and Student Achievement

This paper addresses the effects of added funding on student achievement in disadvantaged schools. The literature offers no consensus on this topic, but added funding is a common remedy offered to low-achieving schools. The Abbott v. Burke rulings refer to an achievement gap between Abbott districts and wealthier districts and express a goal of reducing this gap by addressing the funding gap. A preliminary analysis using publicly available state assessment data from New Jersey shows some promising results at the 8th grade level. The increased funding is associated with very large increases in the fraction of students in a district attaining the advanced proficient level on the state assessment.

However, this analysis is not the ideal study for several reasons. The data are aggregated to the school district-level, which may mask important differences at different points in the achievement distribution. Also, New Jersey has made no attempt to institute consistent testing over time; any measured changes could be coming from manipulations of the proficiency threshold rather than changes in student scores. I address these concerns using several methods and alternate data sources. I use restricted-access National Assessment of Educational Progress (NAEP) data to confirm the results from the state tests and the New Jersey state assessment microdata to examine the entire distribution of outcomes.

Chapter 3: Does More Money Buy Better Teachers? Evidence from New Jersey

Urban and high-poverty districts are widely reported to employ lower quality teachers than wealthier districts and to suffer from high teacher turnover. A key question is whether more funding would be used by districts to improve teacher quality. Having established in Chapter 1 that total expenditures and instructional expenditures increased following the Abbott reform, it is possible that the money simply went to larger salaries for the same personnel. Information on the characteristics and salaries of teachers is publicly available in New Jersey. With data on the schooling, experience, school assignment and salary of every teacher in the state, I test whether the pool of teachers in Abbott districts "improves" in terms of observable characteristics after the funding increase. I match the teacher files over time to create a longitudinal database and test whether the Abbott funding increase affects teacher retention rates.