

The Short and Long-Run Effects of Attending the Schools that Parents Prefer

Diether W. Beuermann

Country Department Caribbean
Group

POLICY BRIEF N°
IDB-PB-369

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August 2022



Cataloging-in-Publication data provided by the
Inter-American Development Bank
Felipe Herrera Library
Beuermann, Diether.

The short and long-run effects of attending the schools that parents prefer / Diether W.
Beuermann.

p. cm. — (IDB Policy Brief ; 369)

Includes bibliographic references.

1. Education, Secondary-Barbados. 2. School choice-Barbados. 3. Public schools-
Barbados. I. Inter-American Development Bank. Country Department Caribbean
Group. II. Title. III. Series.

IDB-PB-369

<http://www.iadb.org>

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Policy Brief

The Short and Long-Run Effects of Attending the Schools that Parents Prefer

By

Diether W. Beuermann

Abstract

Using meta-analysis we document that (across several contexts) attending sought-after public secondary schools does not tend to improve student test scores. We argue that this fact does not preclude the possibility that these schools could lead to gains in the future. We explore this notion using both administrative and survey data from Barbados. We show that preferred schools have better peers but do not improve short-run test scores. However, the same students at the same schools have more postsecondary school completion and improved adult well-being (based on an index of educational attainment, occupational rank, earnings, and health). These long-run benefits are larger for females, who also experience reduced teen motherhood.

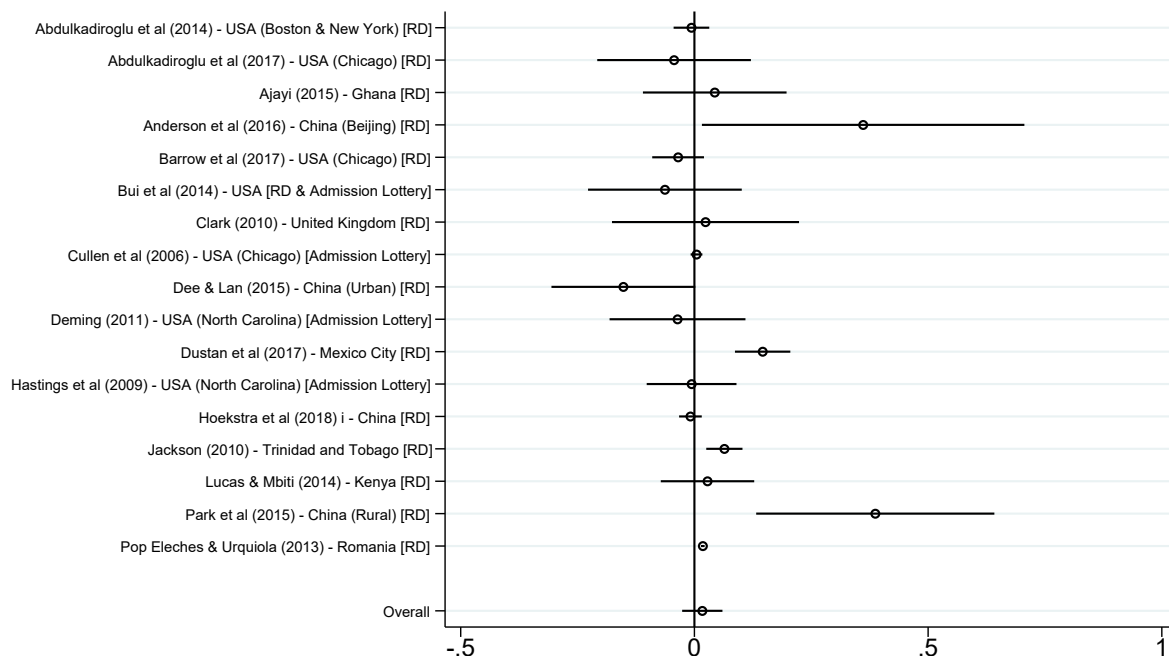
JEL classifications: I20, J0

Keywords: Preferred Schools, School Choice, Barbados

1. Introduction

Most parents have strong views regarding which schools to send their children. Indeed, in many nations, there are preferred or elite public secondary schools for which there is high demand and fierce competition. This is, however, a bit of a puzzle because the evidence from various nations shows that attending sought-after public secondary schools does not improve secondary school examination performance. Using meta-analytic methods, Figure 1 shows that the precision weighted average effect on test scores across all publicly-available studies using quasi-random assignment to either a preferred or elite (non-charter) public school (either through lottery or selective enrolment exam cutoffs) is statistically indistinguishable from zero. Importantly, this is not the result of averaging large positive and large negative effects, but rather reflects the fact that most studies (13 out of 17) find no impacts.

Figure 1. Standardized Effects of Preferred Public Secondary Schools on Test Scores



Note: Estimated effects and 95 percent confidence intervals are shown. RD denotes a regression discontinuity design exploiting admission scores cutoffs. Admission Lottery refers to identification strategies exploiting randomized admission lotteries for oversubscribed schools. The resulting overall weighted average effect shown is 0.017 of a Standard Deviation with a 95 percent prediction interval of [-0.026 ; 0.059].

One potential explanation for this pattern is that school preferences might be based on different outcomes than secondary school exam performance. If so, preferred schools may improve outcomes valued by parents (such as non-cognitive skills, social skills, job referral networks, adult earnings, and well-being) that are not well-measured by test-score impacts. In Beuermann and Jackson (2022) we test this hypothesis using comprehensive administrative and survey data from Barbados.

2. The Barbados Context and Data

Our study is the first to estimate the causal impacts of attending a preferred public secondary school on test scores and also on a broad array of medium- and longer-run outcomes for the same population of students.¹

The Barbados data and context are well-suited for this study. At the end of primary school, students take the Barbados Secondary School Entrance Examination (BSSEE). At BSSEE registration, students submit a ranked list of preferred secondary schools to the Ministry of Education (MOE). Then the MOE uses a deferred acceptance algorithm to assign students to schools based on their choices and their test scores.

The assignment rule used by the MOE creates a test score cut-off for each school above which student applicants are admitted and below which they are not. Since the scores for those who just missed and just made the cut-off are nearly identical, their underlying abilities are nearly identical so any difference among those who score above the cut-off is because that group was more likely to attend a preferred school while the other wasn't. This feature allows us to employ a regression discontinuity (RD) design to identify the causal effect of attending a preferred school.

¹ Clark and Del Bono (2016) examine the longer-run effect of attending one of three elite schools in Scotland but do not examine whether the long-run impacts relate to school impacts on short-run test scores.

We use administrative data on the BSSEE, and all secondary school applications and assignments for twenty-five years (1987 through 2011). To track educational outcomes, we merge these student-level BSSEE data to administrative school exam records taken at the end of secondary and post-secondary studies between 1993 and 2016. To track a rich set of long-run outcomes, we link the administrative BSSEE records to the 2016 Barbados Survey of Living Conditions and focus on cohorts aged 25 or older at the time of the survey.²

2. Main Findings

In Beuermann and Jackson (2022), we show that attending a preferred school is associated with higher-achieving peers, more academically homogeneous peers, and smaller cohorts. However, consistent with previous evidence (across several national contexts), we find no improvement on secondary-school exam performance.

Looking at medium- and longer-run outcomes tells a different story from the short-run test score impacts. Indeed, students at preferred schools are more likely to earn a post-secondary credential. Furthermore, attending a preferred school is associated with more years of completed formal education among individuals between the ages of 25 and 40.

Consistent with the educational attainment effects among these older individuals, persons who attended a preferred school were less likely to be in the labor force between the ages of 17 and 24, but more likely to be engaged in post-secondary studies during those ages. However, the longer-run educational gains are observed only for females.

Consistent with the education patterns, attending a preferred school has no effect on earnings among males, but does increase female earnings. An exploration into mechanisms for women reveals that the earnings increase for women is likely mediated by them being employed in higher status occupations (as opposed to being more productive at the same job), and we

² By age 25, 99 percent of all individuals had completed their formal schooling. Therefore, this population is suitable to measure educational attainment and labor market outcomes.

provide evidence that the improved social networks at preferred schools may facilitate securing these higher status jobs.

To further help explain the gender differences, we examine fertility. Attending a preferred school is associated with reduced teen motherhood but no change in total fertility. This teen motherhood effect may explain why women at preferred schools are more likely to be in post-secondary studies between the ages of 17 and 24, attain more years of education by age 25, and have higher earnings while there is no such effect for men. It can also explain the sizable long-run benefits for women despite no test score effects.

Finally, we also found that both women and men experienced significant long-term health benefits as measured by a healthy Body Mass Index, regular exercise, and regular dental check-ups if they gained admission to the schools that their parents preferred. These findings suggest that preferred schools may promote productive habits and attitudes that are not measured by test scores but contribute to overall well-being. This may represent a significant, previously undocumented, return to school quality.

3. Summary and Policy Implications

Using comprehensive administrative and survey data from Barbados, Beuermann and Jackson (2022) assess the short and long run effects of attending preferred (or more selective) public secondary schools. Findings show null impacts of attending preferred schools on short-run test scores, but sizable effects on short-run noncognitive outcomes (like reduced teen motherhood) that may trigger positive effects on longer-run outcomes (like educational attainment and labor market success).

These results suggest that test score impacts may not be the best measure of a school's impacts on longer-run outcomes (Heckman et al. 2006; Jackson 2018; Beuermann et al. 2022). Accordingly, policymakers should be cautious regarding using only test score impacts in accountability systems and incentive-pay schemes. Moreover, these results underscore the need for evaluations of school choice programs and private voucher programs to move beyond test score impacts alone, and to examine broader sets of outcomes that parents may value.

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