

Literature Scan:

Exploring the impact of school bonds

Jessica Stockham; Katherine Canniff; Trent Sharp, PhD

Introduction

At the broadest level, school funding includes (1) **operating expenditures** such as paying teacher salaries and providing school supplies and (2) **capital expenditures** that fund new schools or school renovation projects. The capital expenditures, typically funded by local bonds, are the topic of this brief. **We ask, *How do capital expenditures for school construction or renovation impact student, teacher, and community outcomes?*** As we detail below, we find mixed results that are positive overall. We organize the findings by outcome type.

Impacts on student standardized test scores

Spending on capital projects is less impactful on student test scores than spending on school operations. In a recent meta-analysis across 31 studies of the causal effects of public school spending, Jackson and Mackevicius (2021) found that marginal benefits accrued to student test scores from capital spending are about half as large as the benefits from operational spending.

The positive impacts on test scores take several years to materialize. Studies generally find a negative or null impact on test scores in the first year as students and teachers transition to a newly constructed school or while the disruptive school renovations are still under way, which then become positive in later years. For example, Lafortune and Schönholzer (2022) studied the Los Angeles Unified School District (LAUSD) to estimate the impact of 144 new schools—the largest school construction initiative in U.S. history—on student outcomes. For students who attend the new schools, they find positive effects on test scores after a small decline in the first year, as well as a small improvement in teacher-reported student effort. Conlin and Thompson (2017), Schlaffer

Research Gaps

This review summarizes quasi-experimental studies from the last 20 years that attempt to measure the causal impact of school capital bond measures. The research base is small and focused on a handful of states (California, Michigan, Ohio, and Texas). Studies often examine only one school district or a subset of school districts in a state that just narrowly passed a bond measure in an election. Therefore, this evidence cannot represent the diverse school contexts across the nation. We also need more research to understand broader impacts, such as teacher retention and attrition.

Researchers caution that there are some challenges in identifying causal impacts within the broader context of student sorting and school reforms. For example, in some cases, positive impacts could be a product of the redesigned school practices, rather than the new school buildings, or some mix of both Hashem et al. (2018). Higher performing students are also often placed into the newly built schools more often than lower-performing students Schlaffer & Burge (2023).

and Burge (2023), Hashem et al. (2018), and Rauscher (2020) noted the same test score trends in Ohio, Texas, and California, respectively.

The literature is inconsistent as some studies find no impact on test scores. Goncalves (2015), who studied Ohio school improvement projects, and Martorell et al. (2016), who studied Texas capital bond measures, find no positive impacts on student test scores.

Some evidence shows that even students who are left behind at the original facilities in the same district as new school construction benefit with higher tests scores. Both Lafortune and Schönholzer (2022) and Welsh et al. (2012), who studied new school construction in LAUSD, found that students who stayed behind at the older, less crowded schools saw some test score gains, though not as large as among students who attended the new schools. This may be due to reduced overcrowding in their classrooms. In Texas, Schlaffer and Burge (2023) found that students who stayed at the existing facilities, who were lower performers on average than students at the newly constructed schools, saw some of the largest gains in their test scores.

Evidence from California suggests that disadvantaged students may benefit the most from new school construction. Rauscher (2020) found that California capital bond measures improved test scores in the longer term for students whose families have low-socioeconomic status (SES), 6 years after the election, but had no impacts on the test scores of students from families with high SES. Welsh et al. (2012) and Lafortune and Schönholzer (2022) studied this LAUSD initiative and found the strongest positive effects for the subset of students who escaped the most severely overcrowded schools and for lower-achieving and lower-SES students.

Elementary students benefit more than high school students. Welsh et al. (2012), who studied new school construction in LAUSD, found positive impacts on test scores from school capital projects for elementary school students but found inconsistent or no impact on test scores for high school students. Goncalves (2015) noted similar trends in Ohio.

Impacts on enrollment and attendance

Enrollment effects are mixed for the handful of studies that measure it. Goncalves (2015) found a 5% increase in enrollment for low-income and more affluent school districts in Ohio after passing a bond. Hong (2017) identified positive enrollment effects in districts that passed a school capital bond in Michigan. Similarly, Neilson and Zimmerman (2014) observed 17% increases in public school enrollment due to new school construction in a single district in Connecticut. However, Lafortune and Schönholzer (2022) found no change in enrollment within the neighborhoods of the newly constructed LAUSD schools.

New school construction may boost student attendance rates, but more evidence is needed.

Lafortune and Schönholzer (2022) found large and immediate benefits to student attendance rates, an

additional 4 days per year, at newly constructed schools in LAUSD. However, Goncalves (2015) studied school renovation projects funded by capital bonds in Ohio and found no impacts on attendance.

Impacts on housing prices

Capital bonds increase house prices in school districts. Cellini et al. (2010) found strong and immediate positive impacts on home prices that persist for a decade. Goncalves (2015) and Conlin and Thompson (2017) both measured positive impacts on housing prices in Ohio. For example, Goncalves (2015) measured a 17% to 20% increase in housing prices 4 years after the completion of school capital improvement projects, noting the housing value effects were strongest in wealthiest districts. Lafortune and Schönholzer (2022) estimated the LAUSD new school initiative generated an additional \$1.62 in household value for every dollar of school construction spending.

RELATED RESEARCH ON SCHOOL FACILITY QUALITY

This brief focuses on surges in capital investment at the school district level. Another line of research examines the overall condition of the school facility and how the building quality affects student and teacher outcomes. In a meta-analysis across 18 non-causal, correlational studies, Gunter and Shao (2016) found a weak positive relationship between school facility conditions (e.g., temperature, physical structure, electrical system, noise, age) and student test scores. Descriptive (non-causal) studies suggest positive association between facility quality on teacher attrition, student attendance, and dropout rates, but more rigorous research is needed in this area.

Please see the annotated bibliography document for full citations of all studies referenced in this brief.