



Funds to Improve School Facilities Reduce Achievement Gaps in California

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All children deserve a safe and clean place to learn. Context is critical for student achievement and improving school facilities is particularly beneficial for low-income students. Although low-income students benefit more from school districts' spending on facilities, high-income districts receive more funds for facility improvements. The distribution of facilities funding is inefficient. Comparing high- and low-income student achievement in districts that narrowly pass and narrowly fail to pass a bond measure in California provides evidence.

The Case in California

California's public education funding formula provides more education funding to economically disadvantaged school districts. These funds support operating expenses, such as teacher salaries. But school facilities funding depends on local property tax revenue, supported by the state on a first-come first-served basis. Higher property values allow economically advantaged districts to raise facility improvement funds at a lower tax rate. The disadvantages for low-income districts are compounded by the fact that higher-income areas have more administrative support, which allows them to request matching funds from the state. This facility improvements funding system allows advantaged districts to receive more funding for capital investments than disadvantaged districts. This limits the potential benefits of school facility investments.

Bond Measures in California

From 1999 to 2013 in California, there were 678 close school district elections on general obligation bonds to improve school facilities. General obligation bonds, are bonds backed by local governments that ensure bondholders they will be repaid – via tax revenues, if necessary. Close elections are those where the proportion of votes in favor of passing the bond was within 10 percentage points of the threshold required to pass.

I compare changes in achievement (test scores) in districts that narrowly passed and narrowly failed a bond election. Within a narrow window of voter support around the pass threshold, the assumption of this approach is that achievement changes would be similar, except for variation in voter support, which is held constant. I vary the width of the window around the pass threshold and find similar results.

- **Facilities funding increased achievement among low-income but not high-income students.** Compared to districts that narrowly failed a bond measure, districts that narrowly passed a bond experienced no change in achievement among high-income students. In contrast, low-income achievement increased more in districts that narrowly passed a bond compared to districts that narrowly failed a bond measure. The benefit to low-income achievement amounts to approximately a third of the average gap between low- and high-income achievement in the time period.
- **The benefits of facilities funding emerge after a delay.** The benefits for low-income achievement are delayed and do not emerge until six years after the election measure. This delayed benefit matches the timing of capital spending, which increased two years after the measure. Facilities funding created temporary disruptions to student learning and low-income achievement was most sensitive to those disruptions. This pattern suggests achievement benefits emerge after capital investment in facilities are completed and the proverbial "dust" has settled.
- **The benefits of facilities funding are limited to low-income districts.** Narrowly passing a bond measure increases achievement among low-income students in low-income districts (with high free lunch eligibility), but not in high-income districts. Benefits for low-income achievement in low-income

districts emerge both five and six years after passing a bond.

- **The benefits of facilities funding are larger and more persistent in small districts.** Districts often renovate or build one school at a time, so only a proportion of students experience improved context from district spending on school facilities. When we examine districts with fewer than 5 schools – where a larger proportion of students enjoy the improved context – the benefits for low-income achievement are larger and persist for up to 9 years.

Policy Implications

Passing a bond measure (to fund school facilities improvements) expands equality of opportunity by increasing achievement among low-income students without influencing achievement among high-income students.

Districts and states could work to mitigate the temporary disruptions in achievement for low-income students after passing a bond election measure. If the temporary disruptions could be reduced, the benefits of school facility improvements would become more apparent, investments would be more efficient, and equality of opportunity would improve. One potential way to mitigate disruptions would be to provide extra support for students and teachers by increasing the number and availability of teacher's aides or assistants in schools.

High-income students and districts benefit less from capital investments, and wealthier districts are more likely to invest in facilities on their own. With this in mind, state funding and matched funds for school facility investments would be more efficiently directed to low-income districts.

Read more in Emily Rauscher, "Delayed Benefits: Effects of California School District Bond Elections on Achievement by Socioeconomic Status," *Sociology of Education* (December 2019).