Roundtable News

Money matters . . . and it matters a lot

Too much school research is inaccessible, quick to simplify student comparisons, and does not address the questions on the minds of school leaders and policymakers. That's not true of Rucker Johnson's groundbreaking new analysis of the educational effects of California's 2013 school finance legislation.

On the contrary. Johnson's analysis of the state's 2013 Local Control Funding Formula (LCFF), provided to Roundtable members via Zoom on March 25, rings with bell-like clarity, tracks the school progress of some 6.5 million K-12 students in California's 10,000 public schools over five years, and answers a question on everyone's mind: does money matter? The answer is a resounding YES.

Johnson, a labor economist at Berkeley, smiled as he told us his mother, Carol Johnson, was once superintendent of schools in Memphis, Minneapolis, and Boston. He knows our world.

Major Findings. Here, in brief, is an outline of Johnson's key findings: Money that is targeted to schools with high concentrations of low-income students and sustained over time substantially improves student performance in reading and math in every grade from three to eleven.

Such funding also significantly improves high school graduation rates. Johnson's prior work showed that the availability of high quality preschool programs has a synergistic effect, nearly doubling measurable student performance by Grade 8. Here we explain his analysis and amplify those three findings.

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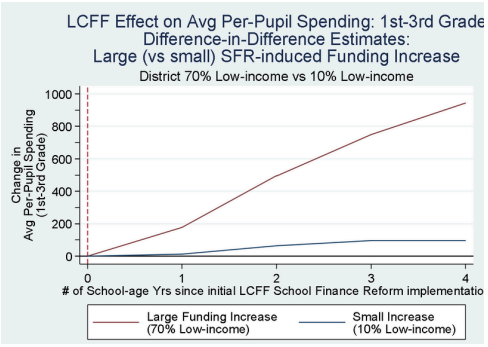
LCFF: Hallmark Legislation. LCFF changed how all districts in the state were funded. It transformed school funding by replacing existing state categorical programs with a weighted per-pupil grant program and encouraging greater district control over how the money is spent. To receive base grants, districts had to limit class size to 24 students in elementary grades. A 20% premium was added for each low-income student, English-language learner, or foster youth, The kicker? An additional 50% of the base grant multiplied by ADA was added when the percentage of targeted students exceeded 55% of district enrollment. Districts, for example, with 70%

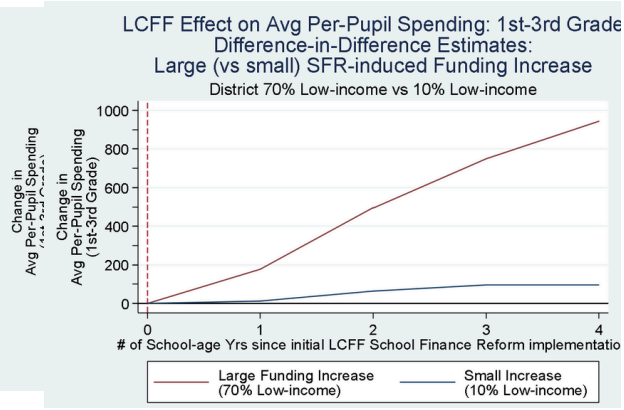


enrollment made up of targeted students, received an additional $5,300 per student when LCFF was fully implemented. Funding for districts with high concentrations of low-income students shot through the roof.

Student Performance Data. The California Assessment of Student Performance and Progress (CASPP) System, launched in 2014, provides individually identifiable student performance data in English Language Arts and Math on virtually every student in Grades 3 - 8 and Grade 11 through a complex mix of alternative tests that includes Smarter Balanced Summative Assessments. Using this treasure trove of student data, Johnson normed student-level test data to NAEP metrics and analyzed the results to connect LCFF funding with student performance.

Does Money Matter? LCFF amounted to an $18 billion commitment from the state rolled out over eight years. This staggered rollout permitted Johnson to tie down the causal relationship of the performance of individual students with the funding available to their districts each year.

Across grades, subjects, and schools, the results are dazzling. Able to compare real children with the same student performance profile in Year 1 with their performance in Year 4, Johnson was able to demonstrate consistent improvements among the most disadvantaged children benefiting from the extra funding in every grade level and in every school receiving significant increased funding.



A reading example demonstrating third grade achievement in large-funding-increase districts versus those with smaller increases is shown below left. Eighth-grade math shows a similar pattern. “Looking at two children who had the same math achievement in fifth grade, when we examine the effects of an additional $1,000 sustained over three years, we find that by Grade 8 students who benefitted from this funding gained a 0.33 standard deviation increase in math, That’s the equivalent of one full year of learning. In reading, the gain by Grade 8 was equivalent to about 9 months of increased learning.”

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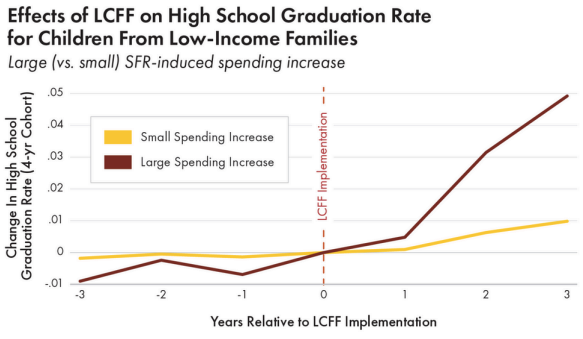
What about graduation rates? Johnson demonstrates that significant funding increases produce “about a five percentage point increase in the likelihood of graduating from high school for students from low-income families.”



How and why does funding matter? What was most significant about LCFF, said Johnson, was not simply the increase in funding but the combination of (1) the 20% premium for at-risk

children; (2) the district-wide 50% premium for concentrations of such children; and (3) greater spending autonomy at the district level.

His deep data dive enabled Johnson to examine how the additional funding combined with greater local autonomy led to improved achievement and higher graduation rates. He concluded that 84 - 95% of the variation in school spending effectiveness could be explained, in roughly the following order, by:

- reductions in class size;
- improved teacher salaries;
- Investments in guidance counselors and health services; and
- teacher professional development.

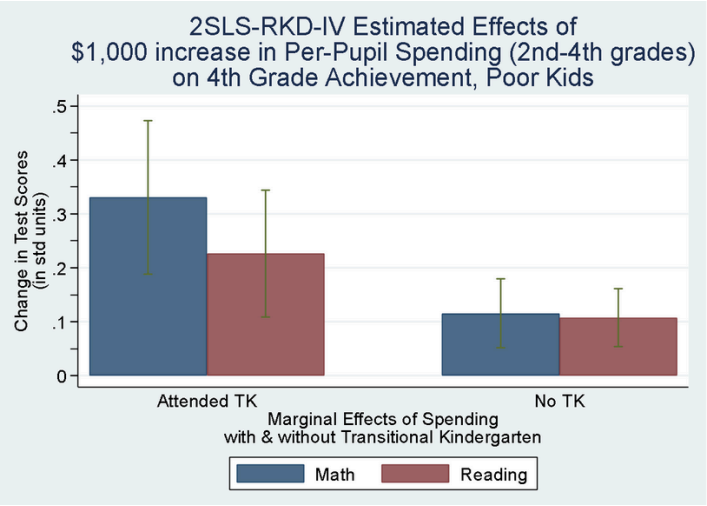
Improvements in administrators' salaries or investments in the central office? Can't point to much bang for the buck there. It is funding directed as closely as possible at helping students that makes a difference. The four areas above are where administrators with discretion should place their educational bets.

Quality preschool multiplies the effects of targeted K-12 funding. Johnson pointed out that a significant school readiness gap precedes school entry. "Roughly half of the achievement gap at third grade already exists at kindergarten entry."

The introduction of "transitional kindergarten" in California in 2010 created, in effect, universal pre-kindergarten for four-year olds in the state. (Prior to 2010, a student born on November 30 was eligible for pre-K. An otherwise identical student born on December 2 had to wait 12 months to enroll. Transitional kindergarten fixed this absurd anomaly.)

"What we found,"reports Johnson, "is that access to high-quality pre-K programs, particularly for children from lower-income families, has synergistic effects with the increased LCFF funding. We see much more bang for the buck if increased school spending is preceded by access to quality pre-K."

"With a sustained $1,000 increase in school funding, we're talking about a doubling of the effect of that money when it is preceded by access to high quality pre-K. We don't see the increase if students subsequently attend poorly funded schools. It's only when they subsequently attend average or above average well-funded schools that we see these student performance increases."



Discussion

Three takeaways emerged in the discussion that followed Johnson's presentation. The importance of understanding the magnitude of severe funding inequalities as the socio-economic mix of districts changes from the poorest families to the most affluent. The transparent importance of universal pre-Kindergarten to tackle the school readiness gap. And the urgent need to put this analysis in front of policy-makers to contradict the false meme that money doesn't make any difference and class size does not matter.

Money matters. It matters a lot. And this detailed analysis of 6.5 million students in 10,000 California schools reveals that school leaders will find the biggest bang for their educational buck by increasing instructional spending including reducing class size.

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