Efficiency is a key issue in school finance because when resources are not used to achieve the maximum possible student outcomes, it is not possible to determine the student outcomes that will result from additional funding. After decades of investigation, it is clear that how money is spent is much more important than how much is spent. This is unfortunate for courts involved in school finance challenges that feel bound to only make funding changes.

The United States has seen many of these legal challenges, despite greatly increased resources and new policies such as smaller classes over the last fifty years. The continued dissatisfaction is easy to understand because it is clear that there has been little to no improvement in that same timeframe. Current data does not show that increased resources lead to improvements in student performance.

In fact, the majority of estimates of the impact of teacher-pupil ratios, teacher education, and teacher experience gave no strong reason to believe that there is any statistically significant relationship between these factors and student performance. There have been experiments with class size in Tennessee, but the study did not show any benefits for smaller sizes after grade 3.3

Eric Hanushek extracted comparative information about school districts in Texas.4 By comparing the percentage of students who passed their TAKS tests to the spending in that district, he determined that large spending often went hand in hand with the lowest achievement. As the graph below illustrates, even after taking student characteristics into account there is still a slightly lower achievement rate for the higher spending districts.
What is interesting in this data is that districts that spent the same amount of money, even taking student and district characteristics into account, could differ by up to 40 percent in student pass rates. When Hanushek limited the districts examined to those who spent less than $15,000 per pupil, eliminating the outliers that imbalanced the data, he still found no relationship between spending and performance. There was a slight positive relationship between teacher salary and the passing rate, but the impact was trivial. After examining pupil-teacher ratios, Hanushek still found no explanation for the fluctuations. Courts have been at a loss with how to deal with school finance issues, usually believing themselves to be limited to adjusting the amount of funding. However, these adjustments have not proven beneficial. In New Jersey, courts have increased spending sharply during recent years. Despite this, New Jersey's students have shown no marked improvement over the rest of the nation. Increased spending did not correlate with improved scores. 

Although spending, pupil-teacher ratios, and teacher salaries are not systematically related to student outcomes, teacher effectiveness is extremely important. Using a “value-added” metric, Hanushek noted that teachers ranked at different levels had wildly different impacts upon their students. A 90th percentile teacher increases student income $500,000 every year that they teach. But there are symmetric losses for 10th percentile teachers. Demonstrating the benefits that are possible if this information is acted on, Hanushek showed that by just replacing the bottom five to eight percent of teachers with just average teachers, the U.S. would overtake countries like Canada and Finland to become the world’s leader in student performance on international tests. This would greatly affect the U.S. economy; the added growth over the next 80 years would have a present value five to eight times our current GDP. 

The issues that have been a rallying cry of education reformers for decades, class sizes and school funding, have been proven to be statistically insignificant indicators of student achievement. Hanushek presented several recommendations for improvements in efficiency. Jumping on the impact that teacher effectiveness has on students, he argues that teacher pay should be awarded accordingly. In fact, he states: 

The policies of the state toward teachers are particularly damaging to developing a productive and efficient system. When the State mandates teacher salary increases that are unrelated to performance, makes it difficult through labor laws to remove ineffective teachers, introduces certification requirements that are unrelated to classroom performance, or fails to develop a system that recognizes the forces of supply and demand, it effectively hurts the students by denying them the best education for the spending of districts. Hanushek also points out that charter schools that produce high achievement in students while receiving lower spending have not been encouraged, but instead are limited and capped by the legislature. Encouraging charters is a way to increase efficiency regarding taxpayer money. 

Simply increasing funding for the education system is clearly not the answer. Optimizing efficiency would enable the current finances to be utilized in the best possible manner, and would allow accurate estimations of what funding needs to be increased.

View the full report by Hanushek here.

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1 Edgewood I, II, III, & IV; West Orange Cove I, West Orange Cove II.
2 Texas Taxpayers and Student Fairness, et. al. v Michael Williams, Plea of Intervention by the Efficiency Intervenors.
4 Ibid.
5 Ibid.