NATIONAL EDUCATION POLICY CENTER

School of Education, University of Colorado Boulder
Boulder, CO 80309-0249
Telephone: 802-383-0058

NEPC@colorado.edu
http://nepc.colorado.edu

Research-Based Options For Education Policymaking

Does Money Matter?

William J. Mathis, University of Colorado Boulder
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> *"Only a fool would find that money does not matter in education."*
>
> Superior Court Justice Howard Manning
> Memorandum of Decision
> Hoke County vs. State of North Carolina[1]

For families and for government, our budgets are crucial. We allocate limited resources to those things we need and value most. When we want a better home, car, roads, or military, we direct money to those causes. Despite polls showing public support for schools, there is a longstanding advocacy movement that argues that, for schools at least, money doesn't matter – so we need not worry about adequately funding them. Moreover, since K-12 education is the largest item in state budgets,[2] this disinvestment can be politically popular as it significantly lowers taxes.

Underinvestment in schools has characterized Western countries since the beginning of public education and is the result of political decision-making, not a lack of resources or citizen support.[3] The political debate has spawned court cases in 44 states.[4] Called as expert witnesses, some education researchers testify that schools are underfunded; while other expert witnesses claim that it is not a question of enough money but simply a matter of using current funds wisely and exercising greater accountability.[5] The Cato Institute, for example, has long argued that spending does not improve outcomes.[6] Just this year, we have seen Michigan's Mackinac Center[7] argue that schools are well funded, while Detroit's teachers have been told that there is insufficient money to pay their already-earned salaries (resulting in a walkout).[8] Meanwhile, the Texas Supreme Court declined to address funding disparities while opining that the system is nonetheless inadequate.[9]

The Claims and the Controversy

Highlighted in the watershed 1966 Coleman Report,[10] school-level factors were found to be overwhelmed by outside-of-school factors. This led to a decades long debate over whether schools mattered that much.[11] Along a different dimension, Eric Hanushek of the Hoover Institution claimed there is no systemic relation between spending and school quality and has testified to this effect in many school finance cases. His basic claim is that the nation (and the given state at issue) is a high spender with little to show for it;[12] in fact, a majority opinion from Justice Alito of the US Supreme Court cited Hanushek's claims to support the assertion that "court-imposed funding mandates" have minimal effectiveness.[13] Since there is little or no relationship between educational spending and achievement test scores, goes this line of reasoning, there is no compelling obligation for states to provide equality or adequacy in education funding – nor to raise taxes.[14]

In a widely cited and influential 1986 article, Hanushek tallied up the number of research reports that had positive results and those that had negative results and concluded that "Variations in school expenditures are not systematically related to variations in student performance."[15] Hedges, Laine and Greenwald, among others, challenged this conclusion, pointing out that Hanushek had lumped good work with poor work and simplistically "vote counted" the number of studies on each side of the question.[16] When Hedges *et al.* eliminated the weak studies, support for Hanushek's claims disappeared. In their analysis of the remaining 60 studies they found "systemic positive relations between resource inputs and school outcomes." Further, the size of the effect was large enough to be of practical significance.[17]

The Debate Evolves: Where Does Money Matter?

By the 1990s, a strong school finance litigation push had emerged, first focused on equitable distribution of funding and then focused on the adequacy of funding.[18] The outcome from the majority of cases agreed with Judge Manning – money matters.[19] Even Hanushek, it should be noted, does not argue that money does not matter at all; he quickly acknowledged that money matters "somewhere." Thus, the debate evolved into how much it matters and where it matters.[20]

Looking at NAEP scores in 1997, Wenglinsky identified factors that caused increases in achievement. For fourth graders, new money led to increased expenditures on instruction and school district administration, which then led to more favorable teacher-student ratios. In turn, this raised average achievement in mathematics. For eighth graders, the increased teacher-student ratios reduced problem behaviors, thereby improving the social climate of the school. This led to improved classroom environments and increases in math scores.

Expenditures related to capital outlays, school-level administration, and teacher education levels (but not pay) were not found to increase achievement.[21]

Even with this research, Baker and Welner[22] concluded that two major problems remained: (1) test scores are a narrow measure of desired school outcomes, and (2) previous work was too correlational, not allowing for causal inferences. Johnson, Jackson and Persico got around the first problem and partially addressed the second, in their examination of data in 28 states that had implemented finance reforms between 1970 and 2010. In addition to measuring short-term outcomes, they followed up on long-term outcomes in students' lives. The results were significant and meaningful. A 20% "increase in per-pupil spending each year for all 12 years of public school leads to 0.9 more completed years of education, 25 percent higher earnings, and a 20 percentage-point reduction in the annual incidence of adult poverty." The gains were achieved primarily by lower student-to-teacher ratios, increases in teacher salaries, and longer school years. Gains were strongest for economically deprived children and were strong enough to eliminate from two-thirds to all of the adult outcome gaps between those raised in poor and non-poor families.[23]

Similarly, LaFontaine, Rothstein and Schanzenbach demonstrated that state finance reform led to immediate and sharp increases in spending[24] following court decisions. These were then followed by more gradual increases in NAEP scores. Baker confirmed gains from teacher salaries and small class sizes.[25] At this point, a consensus had emerged.

Conclusions and Recommendations: Where Should We Invest?

- Adequate and equitable distributions of school financial resources are a necessary underlying condition for maintaining democracy, improving school quality and equality of outcomes.[26]
- While specific results vary from place to place, in general, money does matter and it matters most for economically deprived children.[27]
- Gains from investing in education are found in test scores, later earnings, and graduation rates.[28]
- The largest gains in achievement have been in states that have undertaken fundamental financial reforms.[29]
- In any case, money must be spent wisely. In some cases, necessary expenditures (facilities, administration, etc.) will not be reflected in academic gains.[30]
- Among the most productive investments resulting from increased spending are[31]
    - High-quality preschool
    - Small class sizes – particularly in lower grades and for economically deprived children.
    - Teacher pay
    - Additional learning time has a positive effect on academic motivation and low-performing students.[32]

Notes and References

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