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May 2002 | Volume 59 | Number 8 Beyond Instructional Leadership Pages 48-59

A Research Synthesis / Unequal School Funding in the United States

Archives

Bruce J. Biddle and David C. Berliner

Current Issue

What does the evidence say about unequal school funding and its effects?

Most people believe that students do better in well-funded schools and that public education should provide a level playing field for all children. Nearly half of the funding for public schools in the United States, however, is provided through local taxes, generating large differences in funding between wealthy and impoverished communities (National Center for Education Statistics, 2000a). Efforts to reduce these disparities have provoked controversy and resistance.

Those who oppose demands for more equitable school funding have embraced the claims of reviewers such as Eric Hanushek (1989), who wrote:





>> Read Abstract

Detailed research spanning two decades and observing performance in many different educational settings provides strong and consistent evidence that expenditures are not systematically related to student achievement. (p. 49)

But other well-known reviewers disagree. For example, in 1996, Rob Greenwald, Larry Hedges, and Richard Laine wrote:

[Our analysis shows] that school resources are systematically related to student achievement and that those relations are large [and] educationally important. (p. 384)

Given such disputes, what should we believe about school funding and its impact? And given what we know today, what should we do about inequities in funding for education in the United States?

Differences in School Funding

Funding in the United States

Public school funding in the United States comes from federal, state, and local sources, but because nearly half of those funds come from local property taxes, the system generates large funding differences between wealthy and impoverished communities. Such differences exist among states, among school districts within each state, and even among schools within specific districts.





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In 1998, for example, the state with the highest average level of public school funding (adjusted for differences in cost of living) was New Jersey, with an annual funding rate of \$8,801 per student, whereas the state with the lowest average level was Utah, with a yearly rate of \$3,804 per student (see fig. 1). This means that the typical student attending a public school in New Jersey was provided more than *twice* the fiscal resources allocated to his or her counterpart in Utah.

Figure 1. Average Annual Expenditures (in U.S. Dollars) per Student Within Each State in 1998, Adjusted for Cost of Living

New Jersey\$8,801	New Hampshire\$6,195
New York7,853	Georgia5,998
Connecticut7,635	Washington5,995
Wisconsin7,448	Illinois5,991
Delaware7,255	Louisiana5,989
Pennsylvania7,202	North Dakota5,979
Rhode Island6,930	Florida5,829
West Virginia6,908	South Carolina5,827
Michigan6,873	Missouri5,817
lowa6,823	Texas5,815
Nebraska6,799	North Carolina5,763
Wyoming6,790	South Dakota5,667
Minnesota6,767	Colorado5,599
Vermont6,746	Nevada5,478
Maine6,739	Hawaii5,430
Indiana6,661	Alabama5,356
Alaska6,581	New Mexico5,339
Maryland6,544	Oklahoma5,317
Massachusetts6,518	Arkansas5,268
Oregon6,422	Tennessee5,223
Montana6,349	Idaho5,029
Kansas6,311	California4,939
Ohio6,251	Mississippi4,924
Virginia6,215	Arizona4,629
Kentucky6,196	Utah3,804
Source: Education Week, 2000, p. 82. Used with permission.	

Disparities in per-student funding levels are actually greater *within* some states than among the states as a group. To illustrate, in 1998, public school districts in Alaska that were ranked at the 95th percentile for per-student funding received an average of \$16,546 per student for the year, whereas school districts ranked at the 5th percentile received only \$7,379 on average. Other "winners" in the inequality derby included Vermont (where school districts at the 95th and 5th percentiles received an average of \$15,186 and \$6,442, respectively), Illinois (where the figures were \$11,507 and \$5,260), New Jersey (\$13,709 and \$8,401), New York (\$13,749 and \$8,518), and Montana (\$9,839 and \$4,774).



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In contrast, differences in funding were quite small in such states as Nevada (where better-funded and notso-well-funded districts received an average of \$6,933 and \$5,843, respectively, for each student), as well as in Hawaii and Washington, D.C., each of which is served by only one large school district (National Center for Education Statistics, 1998).

Nor is the practice of inequitable public school funding confined to the district level. Schools within a given district or classrooms within a specific school may also experience massive differences in funding (Rothstein, 2000). Such inequities appear because the needs of disadvantaged students are less often heeded in debates about programs, facilities, and funding allocation in local venues.

From the preceding data we learn that a few students from wealthy communities or neighborhoods within generous states attend public schools with funding of \$15,000 or more per student per year, whereas some students from poor communities or neighborhoods within stingy or impoverished states attend schools that must make do with less than \$4,000 per student per year.

What proportion of students attend well-funded and poorly funded schools? We can get some idea by looking at the school districts that report various levels of per-student funding. Figure 2 on page 54 provides this information for the 7,206 districts that enrolled 1,000 or more students in 1995. Of these districts, 1,425 (or 20 percent) received less than \$5,000 in 1995, and 451 (or 6 percent) provided \$10,000 or more per student (National Center for Education Statistics, 1998).

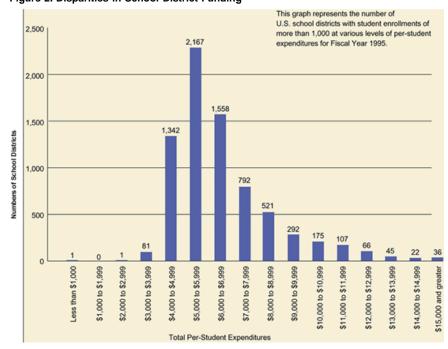
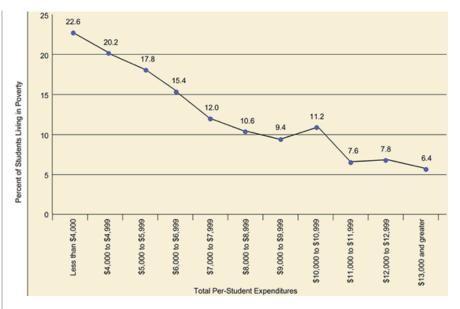


Figure 2. Disparities in School District Funding

Source: National Center for Education Statistics, 1998, pp. 103-104.

Other data show that communities where student poverty is rare tend to have well-funded schools, whereas schools in communities where student poverty is rampant tend to receive much less funding. Figure 3 on page 57 shows the relationship between funding and student poverty rates for school districts with enrollments of more than 1,000. Districts reporting higher levels of funding are more likely to be located in communities where student poverty is minimal, whereas those reporting lower levels of funding are more often located in communities where student poverty is sizable (National Center for Education Statistics, 2000b).

Figure 3. Total Per-Student Expenditures Versus Student Poverty Rates for U.S. School Districts with More Than 1,000 Enrollment



Source: Prepared using information from the Common Core of Data for 1995, School District Data Book, National Center for Education Statistics (2000b).

Funding in Other Countries

Funding differences in the United States generate huge disparities in the quality of school buildings, facilities, curri-culum, equipment for instruction, teacher experience and qualifications, class sizes, presence of auxiliary professionals, and other resources. It would surprise most U.S. citizens to learn that disparities such as these are simply not tolerated in other developed countries, where public schools normally receive equal funding in rich and poor communities alike on the basis of the number of students enrolled. Robert Slavin (1999) explains the difference:

To my knowledge, the U.S. is the only nation to fund elementary and secondary education based on local wealth. Other developed countries either equalize funding or provide extra funding for individuals or groups felt to need it. In the Netherlands, for example, national funding is provided to all schools based on the number of pupils enrolled, but for every guilder allocated to a middle-class Dutch child, 1.25 guilders are allocated for a lower-class child and 1.9 guilders for a minority child, exactly the opposite of the situation in the U.S., where lower-class and minority children typically receive less than middle-class white children. (p. 520)

Poor and minority children always face problems that are not experienced by their peers, and in all advanced nations they tend to have more difficulties with education. But in the United States, those children face additional handicaps because they are often forced to attend poorly funded schools.

Excuses for Unequal Funding

As a rule, U.S. citizens say they are committed to the welfare of children, the ideal of equal opportunity, and the notion that public education can and should provide a level playing field for all students. Given these stated values, why are they willing to tolerate unequal funding for public schools?

Perhaps the simplest answer to this question is that some people in the United States are unaware of the problem or think that inequities in school funding are small and don't matter. Many people, however, *are* aware that public schools are not equally supported but are willing to tolerate this form of inequity. Three reasons may lie behind this odd stance.

Historical Experiences

From their beginnings, public schools in the United States have been viewed as institutions that served their local communities. Initially, those schools were often financed by voluntary contributions, but by the end of the 19th century the tradition of funding them through local property taxes was widespread. This tradition had real advantages because many families were living in small, relatively isolated communities with similar standards of living.

But as time passed, fewer people lived in such communities. Instead, more people crowded into major cities, and then—if they achieved "success"—moved to the suburbs that came to surround those urban centers. As the suburbs grew, the inhabitants retained the tradition of funding public schools through local

property taxes, but now this system was flawed. Parents who moved to affluent suburbs were generally willing to fund well-equipped, well-staffed public schools for their own children, but—familiar only with the tradition that public schools should be funded locally—they saw little reason to pay additional taxes to fund equivalent schools for the impoverished students left behind in city centers or rural towns.

Beliefs About the Causes of Poverty

Resistance to equitable funding for schools has also been supported by several belief systems about the causes of poverty. One of these, the ideology of *individualism*, holds that success and failure result mainly from individual effort rather than social circumstance. The people of the United States are known around the world for their strong belief in the power of personal effort, but this can lead to associated beliefs that blame impoverished persons for their lack of success in life (see Kluegel & Smith, 1986).

A second belief, essentialism, has it that less-privileged groups (such as African Americans, Hispanics, Native Americans, or women) inherit genetic characteristics that account for whatever lack of successes they have experienced. This thesis has appeared repeatedly, in Europe as well as the United States, for more than a century. Advocates such as Arthur Jensen (1972) or Richard Herrnstein and Charles Murray (1994) still promote this theory today. When applied to the poor, essentialism asserts that poverty results from intractable genetic flaws.

Another belief system, the *culture of poverty* thesis, argues that minority persons fail because of inappropriate traditions in the subcultures of their homes, communities, or ethnic groups (see Moynihan, 1969). When applied to the poor, such beliefs suggest that persons in impoverished communities fail because they possess only "limited linguistic codes" or are handicapped by lack of appropriate "cultural or social capital."

Each of these belief systems can lead to the argument that because students from impoverished homes are unlikely to benefit from a "quality" education, funding public schools equally in rich and poor neighborhoods would only waste tax dollars. To voice such arguments openly is not acceptable in the United States today, but the beliefs that would justify them are still embraced privately by many white, affluent people who use them to rationalize resistance to proposals for equal school funding.

Flawed Studies

Reluctance to provide equal funds for U.S. public schools has also been fueled by claims from prominent researchers, reviewers, and others asserting that the level of funding for schools does not affect student achievement. Not surprisingly, such claims often come from sources that are traditionally hostile to public education. For example, the Heritage Foundation (1989) asserted that

Virtually all studies of school performance, in fact, reveal that spending has little bearing on school achievement. . . . Research demonstrates that [reforms focused on performance assessment] will be far more successful than [those] that concentrate on salary levels and class size. (p. 1)

What could possibly justify such a claim?

Early studies and the Coleman report. To answer this question, we must look at the history of research on school funding and student achievement. In 1966, James Coleman and his colleagues released a major report concerned with student achievement. This document, titled Equality of Educational Opportunity, described a massive study that had been commissioned by the National Center for Education Statistics in response to the Civil Rights Act of 1964. Many results discussed in the report concerned other equity issues, but its third section focused on the determinants of achievement and came to a surprising conclusion—that factors related to students' home backgrounds and peer groups in their schools were major generators of achievement, but that school quality and level of school funding had little or no impact after home and peer factors were taken into account.

The Coleman report was lengthy, its procedures and statistics were complex, and its text was murky—and, as a result, almost nobody actually read it. The press, however, widely trumpeted its surprising conclusion about the ineffectiveness of school factors. Thus, the public was led to believe that research had "proven" that schools (and their funding) had little effect, and the fat was in the fire. Conservative forces hostile to the public sector rejoiced because their negative opinions about public schools had been vindicated. Educators, political liberals, and advocates for disadvantaged students became alarmed and began to "explain away" the report's conclusions and to attack its authors.

Somehow, at the time, almost nobody noticed that the report contained major errors likely to have reduced the size of its estimates for school effects on students' achievements. Among other problems, the report's authors had failed to use available scaling techniques to validate their procedures, had made serious mistakes when assigning indicators to major variables, and had failed to measure crucial variables now known to be associated with school effects. In addition, the report had used non-standard procedures for statistical analyses, which generated falsely deflated estimates of school effects.

To summarize, the Coleman report was badly flawed, although its flaws were not widely understood at the time. Its findings were vigorously promoted, however, and its suspect conclusion that level of school funding has little impact on student achievement passed into the public domain as a confirmed fact.

Efforts by economists. At about the same time, a sizable group of economists began to publish studies trying to estimate the size of effects (if any) of investing in public education. In doing so, they were responding to ideas expressed by influential leaders in their field. Milton Friedman (1962) had begun to preach a doctrine that favored privatization of most public enterprises (including education), and, about a decade later, Kenneth Boulding (1972) noted that increases in education funding seemed not to have been associated with greater student achievement. These ideas led some of their economist colleagues to pose models for studying the effects of education investments. Many studies based on these models have since appeared, and most have not reported significant net effects of school funding, a fact noted by Eric Hanushek, an influential economist with conser-vative political ties. Hanushek has declared repeatedly that level of funding is not related to achievement in the real world of public education (see, for example, 1989, 1996a, 1996b)—a conclusion welcomed by those opposed to funding reform proposals.

Hanushek's claims have also attracted opposition. For example, meta-analysts Rob Greenwald, Larry Hedges, and Richard Laine have noted that the bulk of studies by economists have reported positive net effects of funding, and if one combines their findings through statistical aggregation, the resulting pooled estimates suggest *sizable* effects of funding (Greenwald, Hedges, & Laine, 1996; Hedges & Greenwald, 1996; Hedges, Laine, & Greenwald, 1994). Educators and those motivated to redress inequities in funding have welcomed this conclusion, but Hanushek and others have attacked it, and the issue has remained unresolved.

The major trouble with this quarrel is that most of the studies reported by economists have involved serious methodological problems. Most used small samples that did not represent the full range of schools, and most did not examine school funding directly but rather looked at funding-associated school characteristics—such as teacher salaries, student-teacher ratios, or administrative costs—that may or may not be tied to student achievement. Many also employed questionable measures and inappropriate techniques for statistical analysis. Thus, as a group, these studies are poor tools to use for estimating funding effects in the real world, and it is not clear that much can be learned about the issue by reviewing their findings. Nevertheless, such reviews have certainly appeared and have helped derail efforts to reform school funding practices in the United States.

Strong Studies and Their Findings

Fortunately, other researchers have published a number of strong studies on the topic, and we can gain useful knowledge by reviewing their results.

Features of Strong Studies

As in other fields, the best way to pin down the effects of differential funding would be to conduct experiments in which research subjects are assigned randomly to different process conditions. Needless to say, it would be unethical to design an experiment in which students, classrooms, schools, or perhaps school districts are assigned randomly to conditions of adequate and inadequate funding. Unfortunately, however, such conditions exist in the real world of U.S. education, so our next-best strategy is to examine the outcomes of such conditions using well-designed surveys.

As a rule, all strong surveys collect data from reliable sources, make use of validated measuring and scaling procedures, and employ appropriate statistical tools for analyzing data. In addition, strong surveys on the effects of school funding should meet three specific conditions. First, they should be based on sizable samples that include examples of both well-funded and impoverished schools. (Normally this is done by drawing a large and representative sample, by random means, from schools across the country or a state that exhibits a wide range of funding conditions.) Second, such studies should include statistical controls for level of income, socioeconomic status, or other types of advantage in the home or community that students bring with them to the school. And third, such studies should examine effects associated with only one level of aggregation—for example, if the study examines the effects of funding for classrooms, then all other variables used in the analysis should also apply to classrooms. The reason for this last requirement is that the sizes of statistics change as one goes up the aggregation ladder. If effects from more than one level of aggregation must be examined, then an appropriate multi-level technique must be used for analyzing data.

Surveys that meet the conditions described above have many advantages, but even strong surveys have difficulty pinning down causal relations. Why is this so? Let us assume that a survey examines a sample of schools in which level of funding varies and discovers that schools with greater funding also have higher levels of student achievement (controlling for level of home or community advantage). Does this mean that the funding differences generated the achievement outcomes? Hardly. Perhaps causal relations in the real world go the other way, so that where student achievement is higher, parents are more willing to provide greater funding for schools. Or funding differences might be affected by other conditions in students' homes or communities that no investigator has yet thought to examine.

The point is that no matter how carefully one constructs a survey of funding and its outcomes, critics may point out that it has not ruled out all alternatives that might explain its findings. Thus, to establish the case for a causal relation, one must conduct several surveys, using different techniques, which collectively rule out all reasonably credible, alternative processes that might account for the apparent effect one is studying.

The bottom line: Even if we confine our attention to strong studies of funding effects—well-conducted surveys meeting the criteria set forth above—we must look at findings from various studies before we decide that funding effects have been pinned down convincingly.

Strong Study Findings

Bearing these cautions in mind, can we locate strong studies, and if so, what have those studies found? Indeed, we can find such studies (see, for example, Biddle, 1997; Dolan & Schmidt, 1987; Ellinger, Wright, & Hirlinger, 1995; Elliott, 1998; Ferguson, 1991; Harter, 1999; Payne & Biddle, 1999; Wenglinsky, 1997a, 1997b). Although we do not list all of them here, the examples we cite will indicate typical findings. As a rule, such studies report that level of funding is tied to sizable net effects for student outcome.

To illustrate, a study of 11th grade achievement scores among school districts in Oklahoma found that both student poverty and per-student revenues within schools were associated with achievement. Effects for the former were roughly twice the size of those for the latter (Ellinger et al., 1995). Similar results were found for the determinants of 8th grade achievement scores among school districts from across the United States that participated in the Second International Study of Mathematics Achievement (Payne & Biddle, 1999). And Harold Wenglinsky (1997a), using data drawn from the National Assessment of Educational Progress, found that average student socioeconomic status and per-student expenditures within school districts were both associated with level of mathematics achievement in the 8th grade, but that the effects for socioeconomic status were again larger than those for per-student expenditures.

Collectively, these studies have employed various techniques designed to rule out alternative hypotheses, and all of them have concluded that funding has substantial effects, although level of advantage in the home and community has an even greater impact.

Research on Related Issues

Additional research has also begun to appear on issues related to the effects of unequal funding.

International Studies

How great are the effects generated by differences in school funding and student disadvantage among U.S. schools? One way to answer this question is to compare the sizes of those effects with disparities in achievement among different countries found in international comparisons.

For example, the International Association for the Advancement of Educational Achievement published the *Mathematics Benchmarking Report*, based on data from the Third International Mathematics and Science Study, which compared 8th grade mathematics achievement scores of students in other nations with those of students in specific states, school districts, and school consortia within the United States (Mullis et al., 2001).

The two best-scoring entities in the United States were the Naperville, Illinois, Public School District and the self-proclaimed "First-in-the-World" Consortium (composed of school districts from the Chicago North Shore area). Both of these entities have high levels of funding and serve low numbers of impoverished students, and both earned high achievement scores comparable to those of Hong Kong, Japan, and other top-scoring countries. In contrast, the two worst-scoring U.S. entities were the Miami-Dade County Public Schools in Florida and the Rochester School District in New York. Both of these receive low levels of funding and serve many poor students, and each earned low achievement scores similar to those of the worst-scoring nations in the study—Turkey, Jordan, and Iran.

Thus, differences in student advantage and funding in the United States generate achievement disparities that are comparable to those separating the highest- and lowest-achieving nations in international studies. These sizable disparities suggest that the U.S. public school system includes a *huge* range of education environments.

Funding Differences Over Time

Critics of public schools sometimes claim that funding for schools has increased sharply in recent years, but this increase has not generated achievement gains (Hanushek, 1996b). To illustrate, here is what Benno Schmidt, former President of Yale University, said to justify his decision to head a new, national, forprofit, private school program:

We have roughly doubled per-pupil spending (after inflation) in public schools since 1965... yet dropout rates remain distressingly high.... Overall, high school students today are posting lower

SAT scores than a generation ago. The nation's investment in educational improvement has produced very little return. (cited in Rothstein, 1993)

This claim is strongly refuted by a careful study of spending patterns in nine school districts across the United States from 1967 to 1991 (Miles & Rothstein, 1995). Recent legislative mandates and court decisions have assigned to schools a host of new responsibilities designed to meet the needs of disadvantaged students. These mandates have often been underfunded but, taken together, have raised costs for public schools significantly. As a result, about one third of net new dollars during this period went to support special education students; 8 percent went to dropout prevention programs, alternative instruction, and counseling aimed at keeping students in school; another 8 percent went to expand school lunch programs; 28 percent went to fund increased salaries for a teacher population whose average age was increasing; and so forth. Very few additional dollars were provided for needs associated with basic instruction during these years. Small wonder that these types of additional "investments" generated few achievement gains for mainstream students.

How Funding Affects Student Outcomes

If better-funded schools do generate higher levels of achievement, how do they accomplish this task? Various studies have begun to explore this question, with interesting findings. So far, the most impressive findings are associated with teacher qualifications. Better-funded school districts can attract teachers with higher levels of education, more experience, and higher scores on competency tests; these teachers, in turn, seem to generate better achievement scores among students (Darling-Hammond & Post, 2000; Elliott, 1998; Ferguson, 1991; Ferguson & Ladd, 1996).

In addition, better-funded schools are often able to reduce class sizes, and smaller classes seem to help generate better achievement among students. As a rule, the effects so far reported for class size appear to be weaker than those for teacher qualifications, but this conclusion may not be valid. For one thing, some studies of the problem have not examined class size directly but rather the effects of a proxy variable—student-teacher ratio—that is assumed to represent class size but does not. Student-teacher ratio is normally measured at the school or district level and often counts the school's coaches, nurses, social workers, and other service professionals who do not teach.

Moreover, evidence indicates that class size reduction raises achievement *when applied in the early grades*, but evidence has not yet appeared indicating that class size has much effect in the middle school or high school years. Thus, to study the effects of funding-associated differences in class size on achievement properly, one should focus efforts on class size in the early grades. Fortunately, at least one well-crafted study has already done this (Ferguson & Ladd, 1996), and that study reported strong effects for class size. In addition, strong field experiments and trial programs have confirmed that smaller class sizes in the early grades generate both immediate and long-term advantages in student outcomes and that these effects are greater for minority or impoverished students (Biddle & Berliner, 2002a, 2002b).

Differential Impact

Given the evidence reviewed above, it seems obvious that students from disadvantaged families will suffer the most from the U.S. system of unequal school funding because these students are more likely to attend poorly funded public schools. In addition, one assumes that disadvantaged students would suffer particularly when they attend schools with inadequate funding, and research is beginning to support this assumption.

In his recent study, Harold Wenglinsky (1998) found that gaps in achievement between students from high and low socioeconomic-status homes are greater in poorly funded schools than in well-funded schools. And Elizabeth Harter (1999) reported that the achievement effects of funding levels associated with school upkeep are greater in schools serving impoverished students.

Doing Something About the Problem

The funding of public schools through local property taxes has deep historical roots in our country, and suburban hostility to plans for greater equity in public school funding has been intense. Given such facts, what can we do to help solve this problem today?

Because funding inequities exist both within and between states, the ideal way to address them would be through changes in federal policies, but interest in school funding issues has not been great in Washington, D.C., or among the national media. We would need a concerted effort to change this situation as long as most federal politicians depend on support from wealthy donors who often live in the suburbs.

But what about the federal courts? One would think that inequitable school funding creates conditions that violate U.S. citizens' claims for equal opportunities, but in its landmark ruling on *San Antonio Independent School District v. Rodriguez*, issued in 1973, the U.S. Supreme Court denied this contention. By a 5-4 vote, the high court ruled that the U.S. Constitution does not require equal funding among school districts. This decision effectively foreclosed federal court action to remedy inequities in school funding, at least for the

near future.

This does not mean that the funding equity issue has been dead in state courts. On the contrary, many state constitutions mandate equal opportunities in education. As a result, suits challenging the legality of unequal funding based on district property taxes have been filed in more than three-fourths of the states, and these suits have been upheld or are still pending in at least 31 states (Morales, 1997; Murray, Evans, & Schwab, 1998; Rothstein, 2000). Details and histories of these efforts have varied sharply from state to state, but we can summarize their results with four statements:

- Particularly when successful, these suits have stimulated both public interest and follow-up actions by state legislatures designed to provide greater funding equity.
- In many cases, such actions have provided additional dollars from state taxes for impoverished school districts while leaving levels of funding for affluent school districts in place.
- These reforms have tended to reduce but not eliminate the within-state inequities that they were designed to address.
- These actions have not addressed inequities in school funding among the states.

Meanwhile, the focus of some state litigation has begun to shift away from equity to adequacy of support for schools, the latter term referring to whether schools have sufficient funds to "provide adequate education so that all students have equal opportunities to play roles as citizens and to compete in the labor market" (Rothstein, 2000, p. 74). This shift opens a can of worms because how one goes about developing valid and agreed-on measures of "adequacy" is by no means clear. Indeed, if people in the United States were to commit themselves to a level playing field in public education, they (like the Dutch) should provide extra funding for schools that serve large numbers of impoverished students. Such funds would be needed not only for special educational programs and extra physical facilities but also for additional salaries to recruit and retain qualified teachers who would otherwise migrate to schools serving fewer "problematic" students.

What Do We Now Know?

Taken together, research evidence now available suggests a number of conclusions about unequal funding and its effects:

- Public schools in the United States receive sharply unequal funding. Among the nation's school districts, annual funding per student can range from less than \$4,000 to more than \$15,000, and although the "typical" school district with 1,000 or more students receives roughly \$5,000 per year for each student, affluent districts may receive \$10,000 per student or more.
- Large differences in public school funding appear both among the states and within many states.
- Funding differences appear, in part, because much of the financial support for public schools comes
 from local property taxes, which means that the amount of funding that communities are able to
 provide for their schools varies according to community affluence.
- Although most people in the United States are not aware of it, other advanced nations do notfund
 public schools with local property taxes. Instead, they provide equal per-student funding from general
 tax revenues for all schools throughout the country. Some nations also provide extra funding for
 disadvantaged students.
- Most people in the United States say they support equal funding for public schools, but affluent and power-ful people often oppose efforts to correct funding inequities.
- Opposition to equity in school funding reflects several factors: ignorance about funding differences; unthinking acceptance of traditional methods for funding education; selfish desires to keep personal taxes low; and inappropriate beliefs about the causes of poverty that reflect individualism, essentialism, or theculture of poverty thesis.
- Claims from flawed research and reviews of research have asserted that levels of funding for schools have little or no effect on student outcomes.
- Strong studies indicate that level of student advantage within the home or community matters a great deal to outcomes in education, but sizable (although smaller) net effects are also associated with differences in school funding.
- The joint effects of school funding and student advantage are sizable. Achievement scores from U.S. school districts with substantial funding and low student poverty are similar to those earned by the highest-scoring countries in international comparative studies, whereas scores from districts where funding is inadequate and poverty is high are similar to those of the lowest-scoring countries.
- New demands placed on public schools have driven aggregate increases in school funding during recent years. These increases have not been used for additional resources that would generate increases in average student achievement.
- Two types of resources associated with greater school funding have been tied to higher levels of student achievement: stronger teacher qualifications and smaller class sizes in the early grades.

- The achievements of disadvantaged students are more likely to suffer in response to inequities in school funding for two reasons: Those students are more likely to attend poorly funded schools, and they are more likely to be hurt by lack of academic resources when schools are underfunded.
- Legal and political efforts to reform funding inequities have been weak at the federal level, but
 considerable activity concerned with unequal funding has taken place in state courts and legislatures.
 The latter efforts have provoked some increases in state funds for poorly funded districts while leaving
 funding for rich, suburban districts largely in place.

Policy Implications

Given our traditional beliefs about individual efficacy and the recent flowering of conservative thought in the United States, it is hardly surprising that some argue that access to education is a personal right to be exercised by students and their families solely for their own benefit. And yet, Americans have also long embraced an alternative vision for public education that John Adams, Thomas Jefferson, James Madison, and John Dewey articulated.

This vision has stressed the need for a public school system that generates the informed citizenry needed for democratic government, embraces the welfare of all children in the nation, upholds the ideal of equal opportunity, and stresses the belief that public education can and should provide a level playing field. Dewey's maxim, now a century old, applies here: "What the best and wisest parent wants for his own child, that must be what the community wants for all its children" (1899/1900, p. 3).

In Pursuit of Better Schools: What Research Says

Educational Leadership is pleased to publish this article, the second in a series of research reports. This report is condensed from "Unequal Funding for Schools in America," a major research synthesis that appears as part of a series supported by the Rockefeller Foundation—In Pursuit of Better Schools: What Research Says. The Rockefeller Foundation supports research on major issues facing education today.

Further information about the series and a longer, downloadable version of this report may be found at http://edpolicyreports.org. Look for more of this series in upcoming issues of *Educational Leadership*.

How to Support Funding Equity

If you are an educator, an administrator, a school board member, a parent, a civil servant, or a political leader interested in greater funding equity, here are a few strategies to consider:

Become familiar with the facts and issues associated with equity and funding in U.S. schools, the unsupportable claims about funding effects sometimes made by those who oppose equitable funding, and the research findings that contradict those claims.

Become politically active in support of funding reform. Work with the media to raise public awareness of funding inequities and their implications in education, lobby your representatives in Congress to make the case for more federal support of impoverished schools, and work with others at the state level to support legal and legislative actions favoring greater funding equity.

If you represent the media, encourage the production of news items and editorial pieces that focus attention on inequities in funding for public schools and their consequences for individual students and U.S. society, now and in the future. If you are a jurist or public servant, welcome opportunities to make the case for greater funding equity in the courts and legislatures.

In addition, if you are an educator serving in a public school with inadequate funds, focus efforts on strategies, more often found in well-funded schools today, that are now known to be associated with greater student achievement, such as recruiting, motivating, and retaining qualified teachers and reducing class sizes in the early grades.

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