

**Funding Florida's Schools:
Adequacy, Costs, and the State Constitution**

Policy Brief

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Executive Summary

In 1998, Florida voters passed a unique amendment to the state constitution requiring the state to make “adequate provision . . . for a uniform, efficient, safe, secure, and high quality system of free public schools.” This brief examines how Florida courts are likely to interpret this constitutional amendment and whether Florida’s funding system will be successful in meeting the increased constitutional demands.

Florida ranked 38th among the fifty states in funding during the 1999-2000 school year, spending \$5,831 per pupil in K–12. These funds are distributed equitably across school districts compared with other states, although Florida’s funding system is less equitable than it appears at first glance.

The relative *equity* of funding in Florida does not mean, however, that funding is *adequate*. The adequacy standard focuses on whether students’ needs are being met, whereas the more traditional equity standard considers whether schools receive similar funding. The interpretation of these standards has been subject to a large number of lawsuits in Florida and across the nation.

Three key questions have been considered in previous cases and would likely be involved if an adequacy lawsuit were filed in Florida: First, is there evidence of inadequate education in Florida? Higher academic standards pursued by state

policymakers, and previous legal opinions given by Florida’s Supreme Court justices, suggest that the answer is “yes.”

Second, is there any reasonable way to make the education system adequate without increased funding? A discussion of current state policies and research evidence suggests that, although some improvements are possible, it is highly unlikely that the adequacy standard could be met through non-funding changes alone.

Third, if other approaches fail to work on their own, will increased funding help bring the education system closer to adequacy? Again, the evidence suggests that the answer is “yes.”

If these answers are correct, and research suggests that they are, then it is highly likely that the Florida Supreme Court will judge the state’s education funding system to be unconstitutional. Indeed, many other funding schemes have been overturned when judged on the adequacy standard, even in states that have weaker constitutional requirements. Cost studies have shown that a 30 percent increase in funding would be required to obtain adequacy in other states. These same studies have played important roles in the political discussion and court decisions on the issue.

The cost studies from other states are relevant, but Florida is unique in its constitutional demands and in the needs of its student population. It is therefore recommended that the Florida Legislature establish and fund a bipartisan commission of key education experts and stakeholders to oversee a cost study.

The charge to the commission is to recommend what constitutes an adequate education based on Florida’s Constitution and the state’s unique circumstances.

To accomplish this charge, the commission should hire and work with appropriate consultants to design and conduct various aspects of the cost study.

The study should:

1. Review state education standards and other related policies in order to identify specific objectives of the education system and provide guidance about how the constitution's mandate for an "adequate" and "high quality" system of education should be interpreted.
2. Identify gaps between the state's educational objectives and actual educational outcomes and services.
3. Identify and measure the costs of eliminating these gaps.
4. Recommend changes in funding and other education policies that are necessary to meet the definition of adequacy established by the commission.

The purpose of the adequacy movement is to give all students the opportunity to reach their potentials. This is no easy task, but the results of a cost study would provide a basis for reasoned discussion and policy reform.

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Section 1: The Issue

Access to a high quality education is critical to a high quality life. For this reason, education funding has been one of the most important social issues of the past half-century. Until the 1960s, racial minorities received an inferior education due to the low resources available in racially segregated schools. These inequities have been greatly reduced, as part of the larger Civil Rights movement, but significant concerns remain. Large resource inequities still exist among racial and ethnic groups. There is also greater awareness of the unique needs of many students that goes well beyond racial categories. The importance of a high quality education for all citizens continues to grow rapidly, compounding these concerns.

The adequacy movement is a response to these concerns and an extension of earlier educational equity reforms, but its purposes and arguments are quite different. An adequate education meets students' needs and gives them a reasonable opportunity to succeed. It explicitly acknowledges students' distinct characteristics and focuses on how well they perform, not just on what services they receive. The adequacy movement has transformed the way people think about educational equity—and it has changed the legal and political debate in the process.

This brief begins with a short history of the education funding laws, including the 1998 constitutional amendment passed by Florida voters. This required the state

government to make “*adequate provision . . . for a uniform, efficient, safe, secure, and high quality system of free public schools*” (emphasis added). The meaning of these words has not yet been fully established, but the experiences of other states provide valuable lessons. In particular, litigation and legislation across the country are based upon “cost studies” that help translate the meaning of adequacy into specific policies.

Any effort to make funding adequate must start with an understanding of current funding policies. Florida’s funding system is compared with the results of cost studies in other states to obtain a rough estimate of what similar studies would likely show for Florida. The brief concludes with a discussion of the key legal issues that would be involved if an adequacy lawsuit were filed in Florida.

Section 2: Background

National Perspective and History¹

Before adequacy, issues of education funding focused on relatively simple notions of equity. This idea fit well with the stated goals of the Civil Rights movement in the 1960s and 1970s, emphasizing *equal access* to public facilities and *equal voting rights*. Funding equity across racial groups was a logical goal in keeping with those principles.² It also fit well with the legal strategy used by Civil Rights advocates, who questioned funding and other government policies on the basis of *equal protection* clauses in the U.S. and state constitutions.

Changes in the social and legal environment also help to explain why the equity theme was transformed. There was a backlash against equity-based education reforms toward the end of the 1970s. The simultaneous increase in funding levels and the redistribution of resources to low-income neighborhoods frustrated some taxpayers. The

exaggerated perception of declining achievement scores was blamed on an excessive concern for equity at the expense of educational excellence. Public discontent was further fueled by the nation's unemployment and other economic problems that appeared to be due to the extraordinary economic rise of Japan and other Asian nations where, coincidentally or not, students had higher test scores.

The legal focus on equal protection was also forced to change for one simple reason—funding advocates were losing cases. Courts ruled in favor of existing state funding schemes in more than two-thirds of the cases throughout the 1970s and 1980s. The first major setback was in 1973 when the U.S. Supreme Court, in *Rodriguez v. San Antonio*, found that education is not a fundamental right and is therefore not subject to the equal protection clause of the United States Constitution. There were also losses in state courts. The Colorado Supreme Court decided in 1977 that the state constitution did not require absolute equality, and that local control over funding was a legitimate state purpose. Similar decisions came down in other states. Clearly, advocates for funding equity were going to have to change their legal strategy.

Enter the adequacy movement. The loss in the *Rodriguez* case had been a setback, but it had also served to highlight a key difference between the federal and state constitutions—namely, that most states provided for education that is “thorough and efficient.” This language supplied alternative paths for plaintiffs to pursue remedies on the basis of state law, through state courts.

Some of these lawsuits were effective. In the 1971 case *Serrano v. Priest*, the California Supreme Court decided that education was a fundamental right under the equal protection clause of the state constitution and that the inequities in the existing funding

system violated constitutional law. The court upheld its earlier decision in 1976, relying once again on the state rather than federal constitutional provisions. This series of rulings was a prelude to the central role of state constitutions in later judicial decisions. Indeed, the plaintiffs in the failed *Rodriguez* case later won before the state courts in Texas. Still, most courts were deciding in favor of local control and legislative discretion, and against funding equity.

Since 1989, the tide has turned and plaintiffs have won roughly two-thirds of the 29 school funding decisions. A change in legal strategy was one factor that played a critical role—rather than reasoning that unequal funding violated equal protection, plaintiffs argued that education was *inadequate* for many students, failing to allow them a reasonable opportunity to function as citizens, voters, and taxpayers. Instead of arguing that funding had to be equal, or even equitable, this new strategy focused on the need to give all children basic skills.

The renewed focus on educational excellence during the 1980s and 1990s, especially on raising standards and on increasing the use of achievement tests, reinforced this legal approach by making state educational objectives more explicit and measurable. Without these tests, it is not clear whether adequacy could have been defined in terms of educational outcomes. With the tests, it was not only possible, but required—and in a way could be used to provide clear evidence of inadequacy. This changed the game entirely, creating more victories for funding advocates.

Adequacy and the Florida Constitution

The Florida Legislature was one of many states that took preemptive action in the early 1970s to head off potential lawsuits that might have followed from the *Serrano* case

and other state court rulings. Lawmakers put in place the Florida Education Finance Program (FEFP), which distributed funds to school districts on the basis of the number of students, including adjustments for cost of living and students' needs.³ It also set both minimum levels and upper limits for contributions from local governments through property taxes. This produced one of the most equitable funding formulas in the nation (as shown in the next section). Two lawsuits challenged the FEFP, but neither was successful, leaving the system largely unchanged almost three decades after its adoption. Following other state courts, the Florida Supreme Court asserted in its decisions that the vagueness of state constitutional requirements and the importance of legislative discretion prevented justices from intervening.

Funding advocates lost a third case before the Florida Supreme Court in 1996. Rather than closing the door on legal arguments in favor of adequacy, however, the court opened the door even more widely. In *Coalition for Adequacy and Fairness in School Funding v. Chiles*, the majority held that plaintiffs had “failed to demonstrate . . . an appropriate standard for determining ‘adequacy’ that would not present a substantial risk of judicial intrusion into the powers and responsibilities of the legislature.” Made clear in this statement is the possibility of an “appropriate standard” that if presented in future cases, could offer grounds for the Court to change its ruling.

Justice Overton, in his concurring opinion, went even further, writing that “[w]hile ‘adequate’ may be difficult to quantify, certainly a minimum threshold exists below which the funding provided by the legislature would be considered ‘inadequate.’” Justice Overton also stated explicitly that evidence of low academic achievement would be a “cause for action” in the courts. From a legal standpoint, this alone suggests an

opening for a successful challenge to the adequacy of education funding. Strengthening the legal argument further, voters passed a constitutional amendment in 1998 that made the constitutional demands even more stringent. The language is among the most explicit in the country about the importance of education and the meaning of adequacy. Article IX of the Florida State Constitution now reads

The education of children is a fundamental value of the people of the State of Florida. It is, therefore, a paramount duty of the state to make adequate provision for the education of all children residing within its borders. Adequate provision shall be made by law for a uniform, efficient, safe, secure, and high quality system of free public schools that allows students to obtain a high quality education (italicized language was added in 1998).

It is important to emphasize that Justice Overton’s opinion came before the 1998 amendment was passed. His strong language, along with that added to the constitution, leaves open the strong possibility for a successful challenge in the future. A later section considers the key legal questions that such litigation would have to address.

Section 3: Data

Education Funding in Florida

Before considering whether funding in Florida is adequate, it is first necessary to establish what resources are currently being used for K–12 education. Total operating funds in Florida were \$5,831, during the 1999-2000 school year, according to the National Center for Education Statistics (NCES), a non-partisan federal agency.⁴ By this

measure Florida ranks 38th in the nation in K–12 education spending. (More recent data were unavailable for valid cross-state comparisons.)

A total of 88 percent of these funds came from state and local sources, almost all from the state FEFP formula. Although counties also have some discretion to raise additional revenues, these options are limited and the result is one of the most equitable funding formulas in the nation. Spending levels ranged from \$5,172 in Clay County to \$6,858 in Monroe County, a much narrower difference than those found in other states.

There are two important caveats, however. First, equitable funding across counties does not necessarily translate into equitable funding for individual students or groups. School districts in Florida are much larger than those in most other states, allowing sometimes large disparities within districts to be hidden behind school district averages. For instance, in Alachua County, the pupil-teacher ratio ranged from 10 to 1 in one school to 22 to 1 in another.⁵ Such inequities within districts are unique from a legal perspective. It is unlikely that a court would challenge *local* decisions in a case intended to address the adequacy of the *state's* funding system. This seems especially true in light of the majority's concern about judicial micro-management in the *Coalition for Adequacy* decision.

A second important caveat is that the same dollars may meet the needs of some students but not others. The FEFP partially addresses this concern by increasing funding for districts with large numbers of children whose needs require extra resources, including those with learning and physical disabilities. Extra funding for these “exceptional students” is given to districts by adding money to the base FEFP funding. But the system was not designed to provide an adequate education. From a legal

standpoint, the issue is whether these additional resources are adequate to meet these extra needs and, more generally, whether funding is adequate for all students. The basic structure of the FEFP is sound for this purpose, but current funding levels may still be inadequate.

Section 4: Findings

Is Florida's Funding Adequate?

Florida's constitution, although path-breaking in its explicitness, provides only modest guidance about whether the current state funding system is adequate. What is a "high quality education"? What are "safe and secure" schools? Answering these questions requires a more precise explanation, and a means of translating the ideas into specific dollar amounts. At least 29 states have begun this process using "cost studies".

Approaches to estimate the cost of educational adequacy vary depending on two factors: whether the focus is on education inputs, services, or outcomes; and whether the determination of adequacy is made by educators or scholars. The *successful schools approach* starts by identifying districts that are deemed to be performing well, based on state standards for instance, and then determines what it could cost to replicate in other places what is being done in these benchmark districts. A variation on this is the *cost function approach*, which involves estimating the statistical relationship between funding and outcomes across all schools or districts, and then calculating what additional resources would be necessary to raise every school up to a set outcome level.

Two other approaches focus more on inputs. With the *professional judgment approach*, the elements of providing a sound education are identified by qualified educators. A fourth model, the *effective schools approach*, is similar except that the

responsibility of determining what is adequate is shifted from educators to researchers and scholars. As becomes clear from the results reported below, these differences in method may influence study results.

There has been no attempt to cost out an adequate education in Florida. However, the results of studies in previous states are suggestive. Table 1 below summarizes the results of seven studies in other states. The first column indicates the actual funding per pupil in those states, using the same NCES data source discussed earlier. The second and third columns point out the type of cost study performed and the increase in funding that will be required to achieve adequacy using this approach. The new funding level implied by the results is shown in the last column, calculated by multiplying the percentage increase by the actual spending and then adding this to the original amount.

Table 1: Adequate Versus Actual Funding⁶

	Actual Funding	Approach to Determining Adequacy	% Increase to Achieve Adequacy	Implied New Funding Level
Arkansas	5,277	PJ	33	7,018
Maryland (1)	7,731	SS, PJ	22-34	9,432-10,359
Maryland (2)	7,731	PJ	5-31	8,118-10,128
Missouri	6,187	PJ	37	8,476
North Dakota	5,667	PJ	31	7,424
Washington	6,376	PJ	30-35	8,289-8,607
Wisconsin	7,806	PJ	32	10,303
Florida	5,831	n.a.	n.a.	n.a.

Key: PJ = Professional Judgment Approach SS = Successful Schools Approach
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The increase in funding necessary to reach adequacy appears to be approximately 30 percent in the average state. This implies that school funding is inadequate, even in

states where spending levels are already higher than in Florida. Also striking in Table 1 is the consistency with which the professional judgment (PJ) approach has been used. The issue of who decides what “adequacy” means must be central to the results of any cost study.

Two studies were performed in Maryland, which makes it one of the most interesting states to consider. In the first study, the successful schools approach yielded a 22 percent increase in funds. But the same study also used a professional judgment approach and found that a 33 percent increase would be necessary. The lower funding requirements from the successful schools approach is unsurprising because it assumes that the resources used in schools with strong outcomes will be sufficient in any school. The successful schools approach does have the advantage of being concrete and objective; but a significant flaw is its tendency to ignore differences in non-school factors that may negatively influence students’ outcomes—for example, this approach ignores discrepancies in students’ family situations.

The second Maryland study reveals an even wider range of results, yet only the professional judgment approach was used. In this study, several separate teams of educators came up with their own specifications for an adequate education. This highlights the weakness of the professional judgment approach—that judgments vary. This might also be viewed as a strong point, however, because it takes into account the opinions of the people who have the most experience in students in schools.

One important implication of these results for Florida is that a variety of approaches should be used when conducting cost studies—there is no one best method and there is a lot at stake in getting it right. Nevertheless, there are general lessons that

can be learned. The smallest increase in funding suggested in Table 1 is 5 percent and this is in a state—Maryland—that already spends \$2,000 more per pupil compared with Florida and has weaker constitutional requirements. It is therefore apparent that the relatively low funding levels in Florida would be inadequate when applying the cost study techniques to the state’s strict adequacy definition.

Four Legal Issues about Adequacy

A court decision on adequacy would come down to two issues—legal violation and legal remedy. These issues are associated with three specific questions that have been considered in previous cases: First, is there evidence of inadequate education in Florida? Second, is there any reasonable way to make the education system adequate without increased funding? Third, would increased funding help make the education system adequate?

1. Is there evidence of inadequate education in Florida? The answer to this question will depend on who decides what is adequate, and on what basis. In past cases judges have relied on cost studies and the judgments of educators and researchers.

It is worth recalling Justice Overton’s opinion in the *Coalition for Adequacy* case, in which he wrote that “a county in this state [with] a thirty percent literacy rate...[would have] at least stated a cause for action.” It is highly unlikely that any county in Florida has such a low rate of literacy, but his statement indicates the potential importance of educational outcomes.

Because of the wording of the constitutional amendment, the court might also consider outcomes beyond achievement and literacy. “Safe and secure” schools are also part of the legal requirement—which suggests measuring other outcomes such as the

number of violent incidents that occur on school grounds. The court may also consider the quality of services, such as whether all students have access to trained teachers, quality facilities, and an academically appropriate curriculum. These service-related factors have been considered explicitly by courts and often form the basis of cost studies.

2. Is there any reasonable way to make the funding system adequate *without increased funding*? Although a complete answer to this question is beyond the scope of this brief, the alternative remedies that opponents of adequacy-based litigation have put forward are worth considering, since they will almost certainly be raised in court.

Critics of adequate funding standards often argue that the public school system is an inefficient bureaucratic monopoly and, as a result, that more effort should be placed on reforming it rather than putting more money into it. If this is the case, then it is reasonable to expect that private schools, which are not subject to the same public intrusions, should be more efficient. Using research evidence to compare the performance of private and public schools is therefore useful for evaluating this argument. Such comparisons are also important because providing public funding for private schooling is a possible remedy for inadequate education.

Perhaps the best evidence on private schools comes from a large number of voucher programs put into place in cities such as New York City, San Antonio, Milwaukee, Dayton, and Washington, D.C. In each, students have been allowed to switch from a public school to a private school without having to pay tuition. The studies indicate that performance, on average, is quite similar. Some public schools perform better than private schools, and others perform worse.⁷

There has also been some research on vouchers in Florida. Students enrolled in schools that received F grades for two consecutive years were offered vouchers to attend private schools. It is impossible in these studies to compare the performance of students before and after they switched to private schools because private schools in Florida are not required to test students using standardized measures, nor are they asked to report any measures to the state government. It is possible, however, to identify rough estimates of the effects of voucher “competition” on public schools. This type of research provides some evidence of the degree of inefficiency in the public school system.

A first analysis of the Florida A+ voucher program, released by the pro-voucher Manhattan Institute (MI), found that the threat of vouchers did force public schools to make dramatic improvements—larger than nearly any education program in history.⁸ But, many academic researchers raised serious concerns about the MI findings because of serious flaws in the analysis, the reporting, and the interpretation of the results. For instance, in one re-analysis (by the author of this brief), the results were actually quite similar to the voucher experiments mentioned earlier—there was essentially no voucher effect, even when using the standards set by the MI researchers.

The main theory behind vouchers is that market competition (“market accountability”) makes schools work harder and more efficiently, especially when there are fewer legal constraints. A related major area of policy reform, called “public accountability,” is based on a similar idea: To the extent that public schools can be made accountable, they might also be expected to work harder and more efficiently. Achievement tests, school report cards, school grades, sanctions for low performance, and takeovers are all examples of this second type of reform. Florida has been at the

forefront of accountability for public schools and now has what is widely seen as one of the most aggressive systems in the country. Although gains from these reforms appear positive, they are far too small to counter what courts in other states have found to be large inadequacies. Moreover, Florida is already using all of these accountability policies extensively—reducing their potential use as alternative remedies.

Accountability policies can and should be used to improve the education system; however, the research evidence suggests that adding more such policies to the existing, extensive accountability system will be insufficient to obtain adequacy.

3. Would increased funding help make the education system adequate? This question is just as important as the first two because higher funding cannot be a legal remedy unless there is a reasonable expectation that it will improve the situation. Two bodies of research evidence address this question.

The Statistical Relationship Between School Resources and Academic Outcomes

In a large number of studies conducted from the late 1960s through to the 1980s, researchers found that high-scoring schools did not necessarily have higher funding than low-scoring schools. These studies did, however, suffer from a large number of problems with both data and methods. Fortunately, recent studies are considered to be more valid. New research indicates much more consistent relationships between spending, achievement, and other outcomes—although there remains debate about the extent of the effects.

The apparent relationship between student outcomes and school funding in Florida is likely to be especially weak because schools receive supplemental funding for the neediest students. The extra funding helps low-performing students, but it does not

help them enough to catch up with other students. This means that higher spending districts will often have lower test scores, which may give the false impression that money is irrelevant. Paradoxically, the weak funding-outcome relationship actually reflects the success of efforts in the state to maintain funding equity, rather than the failure of increased funding to improve performance.

The Effects of Specific Education Programs and Interventions

The studies discussed above focus on the simple statistical relationship between outcomes and overall spending levels. The more significant question remains: is there a way—some specific program, for example—in which funding could substantially improve results?

There are a large number of programs that have been shown to improve student outcomes, among them, early childhood education and class size reduction in grades K–3.⁹ Both have been mandated in Florida through statewide votes for constitutional amendments. The purpose here is not to consider all of the possible programs that might be effective, but rather to make the point that the consideration of specific programs is the most relevant way of determining whether additional funding would improve outcomes. There are programs that improve education and these represent reasonable remedies.

There appears to be a strong legal case that education funding in Florida is inadequate according to the state constitution. This conclusion is based on court decisions in other states, court decisions in Florida, and research evidence related to key legal questions. These findings are summarized below:

1. In the past 15 years, two-thirds of legal challenges to education on the basis of adequacy have succeeded.

2. Cost studies in other states suggest that a 30 percent increase in funding would be necessary to achieve adequacy in those states.
3. The Florida Supreme Court, in its majority opinion in the 1996 *Coalition for Adequacy* case, gave a strong indication that future court challenges on adequacy grounds will be successful.
4. The 1998 constitutional amendment made the requirements for adequacy even more stringent, reinforcing the possibility of successful court challenges.
5. The state has established explicit educational standards that are important in defining the meaning of adequacy.
6. Based on the above, the Florida Supreme Court would find Florida's education funding system inadequate, and research suggests that higher funding is a justifiable remedy.

Section 5: Recommendations

These findings suggest a great need for basic information about the concrete meaning of adequacy in Florida and the costs associated with it. It is therefore recommended that the Florida Legislature establish and fund a bipartisan commission of key education experts and stakeholders to oversee a cost study.

The charge to the commission is to recommend what constitutes an adequate education based on Florida's Constitution and the state's unique circumstances. To accomplish this charge, the commission should hire and work with appropriate consultants to design and conduct various aspects of the cost study.

The study should:

1. Review state education standards and other related policies in order to identify specific objectives of the education system and provide guidance about how the constitution’s mandate for an “adequate” and “high quality” system of education should be interpreted.
2. Identify gaps between the state’s educational objectives and actual educational outcomes and services.
3. Identify and measure the costs of eliminating these gaps.
4. Recommend changes in funding and other education policies that are necessary to meet the definition of adequacy established by the commission.

What amount of funds is necessary to achieve adequacy? The results of the recommended study would help answer this question—and provide a basis for reasoned discussion and political debate about the funding needs of the education system.

Florida is a unique state with a great diversity of students. Their needs will never be reduced to a single dollar amount or even to a sophisticated funding formula. Yet, funding is an important prerequisite that allows the members of the educational system—parents, teachers, and principals—to do their part. The process of identifying adequate funding levels will also help to focus attention on the objectives that we have set for our students. We will see what is necessary to ensure that our young people have an opportunity to reach the goals we set forth for them. This is the worthy purpose of the adequacy movement.

Notes and References

¹ For an excellent and detailed history of funding equity and adequacy, see:

Ladd, H. F., Chalk, R., & Hansen, J. S. (Eds.) (1999). *Equity and Adequacy in Education Finance*, Washington, DC: National Academy Press. For a brief discussion, up-to-date status reports, of litigation around the country, see the Web site of the group, ACCESS (www.accessednetwork.org), a non-profit arm of the Campaign for Fiscal Equity. This section of the text borrows from both sources.

² For a review of trends in education resources across racial and ethnic groups, see:

Harris, D. H. & Herrington, C.H. (2003). *Accountability, Standards, and the Growing Achievement Gap: Lessons from the Past Half-Century*, manuscript.

³ For a history of the Florida education funding lawsuits, see:

Herrington, C. H. & Weider, V. (2001) *Equity, Adequacy, and Vouchers: Past and Present School Finance Litigation in Florida*, *Journal of Education Finance*, 27(1), p.517-534.

Mills, J. & McLendon, T. (2000). "Setting a New Standard for Public Education: Revision Six Increases the Duty of the State to Make 'Adequate Provision' for Florida Schools," *Florida Law Review*, 52, 329-409.

⁴ These education spending figures exclude capital spending, which amounts to roughly 10 percent of total education spending in the average state.

⁵ Source: Author's calculations from School-Level Achievement Database, published by the U.S. Department of Education's National Center for Education Statistics. Expenditures per school were unavailable. Also calculated were the averages for the top- and bottom-five schools in Alachua. The range narrowed somewhat, as expected, but the range was still substantial (13-20).

⁶ In Table 1, "actual funding" is taken from the NCES and includes 1999-2000 expenditures for school operations, excluding capital costs. These numbers may differ from those reported in the cost studies or other sources because of differences in spending definitions and accounting procedures. The advantage of the NCES is that spending information is based on a common definition that allows the numbers to be compared across states. The "percentage increase to achieve adequacy" is taken directly from the cost studies. The "implied new funding level" is calculated by multiplying the percentage change by the actual funding level and adding this increase to the actual funding level. The implied funding level is therefore somewhat different than what is reported in the cost studies, but, again, this method allows the numbers to be compared on a common basis. Bibliographic information about the cost studies is provided below:

Arkansas: Odden, A., Picus, L., & Fermanich, M. "An Evidence-Based to School Finance Adequacy in Arkansas," Lawrence Picus and Associates (<http://www.arkleg.state.ar.us/data/education/FinalArkansasReport.pdf>).

Maryland (1): "Calculation of the Cost of an Adequate Education in Maryland in 1999-2000 Using Two Different Analytic Approaches," Prepared for Maryland Commission on Education Finance, Equity, and Excellence (Thornton Commission), Prepared by Augenblick & Myers, Inc., Denver, CO (http://mlis.state.md.us/other/education/Full_AM_Report.pdf).

Maryland (2): "A Professional Judgment Approach To Determining Adequate Education Funding in Maryland" Submitted to The *New Maryland Education Coalition* (http://216.50.9.34/web_data/MAPIFinalReport.pdf).

Missouri: "Calculation of the Cost of an Adequate Education in Missouri," was prepared for the Missouri Education Coalition for Adequacy (<http://www.satlink.msba.gen.mo.us/news/news.asp?ID=203>).

North Dakota: The report, "Calculation of the Cost of an Adequate Education in North Dakota in 2003-2003 Using the Professional Judgment Approach" was prepared for the North Dakota Department of Public Instruction by the consulting firm, Augenblick, Palaich and Associates, Inc. of Denver, Colorado (<http://www.schoolfunding.info/states/nd/NDCosting-OutStudy.pdf>).

Washington: "What Will It Take?" was authored by Dr. David Conley, a University of Oregon professor, published by the Rainier Institute. (<http://www.rainierinstitute.com/issues/education/What%20Will%20it%20Take.pdf>).

Wisconsin: "Funding our Future: An Adequacy Model for Wisconsin School Finance," was written by Jack Norman for the organization, Wisconsin's Future (http://www.wisconsinsfuture.org/reports/Adequacy_report6_02.pdf).

⁷ For reviews of the research on vouchers, see:

Gill, B. P., Timpane, P. M., Ross, K. E., & Brewer, D. J. (2001). *Rhetoric versus reality: What we know and what we need to know about vouchers and charter schools*. Santa Monica: The RAND Corporation.

Carnoy, M. (2001). *School vouchers: Examining the evidence*. Washington, DC: Economic Policy Institute.

⁸ See:

Greene, J. (2001). *An Evaluation of the Florida A-plus Accountability and School Choice Program*. New York: Manhattan Institute for Policy Research.

Harris, D. (2001). What Caused the Effects of the Florida A+ Program: Ratings or Vouchers? In M. Carnoy (Ed.), *School Vouchers*. Economic Policy Institute, Washington, DC.

⁹ Regarding early childhood education, see:

Barnett, W. S. (1985) Benefit-cost analysis of the Perry Preschool Project and its policy implications, *Educational Evaluation and Policy Analysis*, 7(4), 333-342.

Regarding class size reduction, see:

Molnar, A., Smith, P., Zahorik, J. Palmer, A, Halbach, A., & Ehrle, K. (1999). Evaluating the SAGE Program: A Pilot Program in Targeted Pupil-Teacher Reduction in Wisconsin. *Educational Evaluation and Policy Analysis*, 21(2), 165-177.