

May 2006, Number 129

## ADEQUATE FUNDING OF EDUCATION IN GEORGIA: WHAT DOES IT MEAN, WHAT MIGHT IT COST, HOW COULD IT BE IMPLEMENTED?

### I. Introduction

In September 2004, the Consortium of Adequate School Funding in Georgia filed suit in state court claiming that the state's school funding system violates the education provision of the state Constitution. In particular the complaint argues that the State of Georgia is not providing an "adequate public education" as specified in the Constitution. In this brief we consider the following questions: what does an "adequate public education" mean, how might it be measured, what might it cost, and how can the State ensure that adequate resources are available to all students? For a more complete discussion of these issues, see Sjoquist and Khan (2006).

### II. The Concept of Adequacy

Current education funding models are input or resource driven. The essential question that is addressed is, how much money can we afford to spend on education? Given that amount of money or resources, some level of education performance is achieved. Adequacy, on the other hand starts with the question, what is the desired level of education performance? Given the desired education performance, the level of expenditures necessary to achieve that education objective is determined. That expenditure level is said to be

"adequate." There are four basic steps in determining what resources are adequate for education.

Step 1: Set education goals.

Step 2: Establish performance standards by translating the goals into measurable outcomes and setting the objectives for those measures. The outcome measures are typically based on some standardized exam or set of exams, but could include measures such as graduation rates.

Step 3: Determine the resources and programs that are required to achieve that performance standard. This is clearly the hardest step to implement, as will be seen below.

Step 4: Determine the cost of the required resources.

### III. Approaches to Measuring the Cost of an Adequate Education

We focus just on step 3. There are four general approaches that have been used to develop estimates of the resources that are necessary to provide an adequate education.<sup>1</sup>

## **Professional Judgment Approach**

The Professional Judgment Approach has been one of the most commonly used methods for estimating the cost of an adequate K-12 education, having been used in at least 14 states. As the name suggests, the Professional Judgment Approach relies on the opinions of experienced and accomplished professional educators, and other experts involved with cost-management of K-12 education. These teams of education leaders are asked to consider prototype schools that represent different grade levels and different composition of students. The teams are asked to determine what resources are necessary for the prototype school to reach the education standards that have been established.

The cost of providing these resources is then estimated, usually by the individuals conducting the study, to ascertain the adequate level of funding. Adjustments to this amount are made to account for differences in the make-up of the student bodies across districts and for other factors that cause the required resources or the cost to differ across school districts.

There are several concerns associated with this approach. First, while these panels of experts might be provided research on the effect of various educational strategies on student performance, the approach essentially relies on the personal experience of the members of the panel. Second, panel members are not necessarily impartial participants. Third, since the panel has no financial constraint, there is nothing to limit the resources or programs that the panel might suggest.

Fourth, panels are not usually asked to consider how the educational strategies that are recommended for the prototype school should be changed for less typical schools, including those with high concentrations of high- or low-performing students. Thus, the adjustments are some times ad hoc.

Finally, it is hard to believe that the panels can distinguish between the resources required to achieve a standard of, say, a 70 percent pass rate on an exam from an 80 percent pass rate. Furthermore, the panel members may have a personal view as to what the standard should be, and propose resources accordingly.

## **Best Practice Approach**

The Best Practice Approach relies on what research suggests are the best strategies for improving the likelihood that students will achieve the desired educational outcome. The

best strategy can differ by grade and by student characteristics. This approach borrows heavily from the lessons learned from school reform models that have proven effective, and from the judgment of “experts” who have developed and analyzed those models

The principal concern with this approach lies in the reliability of and ability to generalize the research results. First, some strategies, for example, class size reduction, have been extensively researched, while other strategies have received less much attention. Second, it is generally not possible to use the research to specify a specific level of resource, e.g., the student-teacher ratio, that would be optimal. Third, the empirical evidence on some forms of whole school reform, which is one type of best practice, is based on a small sample of schools that have implemented whole school reforms. Thus, there is not strong evidence as to their effectiveness. Furthermore, schools that adopt whole school reforms could be atypical, and thus the results from implementing whole school reform may not apply to the typical school.

## **Successful School District Approach**

The Successful School District Approach is a kind of statistical bench-marking of school districts. In this method, school districts that have achieved the specified educational standard, and are not outliers in terms of expenditures per student, are identified. The weighted average expenditure per student for those school districts provides the estimate of the per pupil expenditure required to achieve a similar level of student performance in other school districts.

The main criticism of this approach is that the school districts that are used to determine the benchmark expenditure level are not likely to be representative. This is particularly the case if the educational standard is set at a high level, since school districts that typically meet high educational standards are those with low numbers of at-risk students. Thus, the average expenditure per student for these school districts may not represent the resources required for school districts with a more representative number of at-risk students. Furthermore, this approach provides no basis for adjusting the adequacy expenditure level for differences in student characteristics.

Use of the average expenditure per pupil for the sample of successful school districts is an arbitrary choice for the estimate of an adequate per pupil expenditure. There is no basis why the average, rather than say the lowest or highest per pupil expenditure, should be considered the expenditure per pupil required to provide an adequate education.

## Cost Function Approach

The Cost Function Approach relies on relatively complex regressions. This approach differs from the Successful School District Approach in that it attempts to determine not only how the level of spending is correlated with academic success, but also how the level of per-student expenditures required to achieve a certain level of education performance varies with the school districts' characteristics, including differences in the composition of the student population. It is really just a sophisticated version of the Successful School District Approach.

The Cost Function Approach involves estimating a regression equation. In that equation the variation in expenditures per student across school districts is regressed against a set of variables that are thought to explain the variations in expenditures per student. These explanatory variables include education performance measures, measures of student characteristics such as percent poor, cost factors, etc. The estimated regression equation can be used to predict the increase in expenditures per student that are required to achieve a certain performance level.

One of the concerns with this approach is that it is quite complex and thus most policy makers have a difficult time understanding the approach. Another problem is that the approach requires extensive state-wide data on district-level per pupil school expenditures, student performance, and various characteristics of students and school districts. A third problem is that the approach takes the strategies currently in use as given in determining the required expenditures; something that it shares with the Successful School District Approach. No state has relied on this approach to establish its school funding program, although such studies have been conducted for New York, Wisconsin, Illinois, and Texas.

## IV. The Cost of an Adequacy Education in Georgia

Because Georgia has not completed an adequacy study, we use some of the studies conducted for other states to develop an estimate of the increase in education funding that might be required in Georgia to achieve an adequate education.

We selected the 16 adequacy studies for other states that provide an average expenditure per student for a representative group of students.<sup>2</sup> The range of required expenditures per students is from \$6,302 to \$9,412 for FY 2004. The mean expenditure per student for these 16 studies is \$7,600 and the median is \$7,561. We selected \$7,500 per

student as the estimate of what Georgia might have to provide to ensure it is providing an adequate education.

It is important to understand what the \$7,500 represents. It is the *minimum* expenditure per student averaged across a representative set of students, and thus, allows for special learning programs. It does not mean there will be no variations in expenditures per student by program type and school level. The expenditures are for standard education programs and associated expenses such as administration, but do not include funding required for construction or special programs such as school nurses, nor does it include federal funding such as Title I.

For FY 2004, Georgia (state plus local systems) had general fund spending of \$10,084.2 million for the 1,498,777 students, or \$6,728 per student (2003-2004 Annual Report Card). To increase spending in school systems that in FY 2004 were spending less than \$7,500 to \$7,500 would have require an increase in FY 2004 spending of \$1,193 million, an increase of 11.8 percent in total state and local education expenditures.

## V. Ensuring That All School Systems Have Adequate Resources

Assume that \$7,500 is the expenditure per student (in FY 2004) required for an adequate education. The State then has to ensure that every school system has at least \$7,500 per student. There are at least two ways to achieve this objective. First, the State can mandate that each local school system spend at least \$7,500 per student. Mandating that school systems spend at least \$7,500 per student is tantamount to requiring low-spending districts to increase property tax rates. This would require an increase in property tax revenues of \$1,193 million, an increase of about 5 mills on average, assuming no increase in State government funding.

The other option is for the State to set the QBE foundation level (i.e., QBE earnings) at \$7,500. To increase minimum revenue per student to \$7,500 the State would have had to increase its FY 2004 spending of \$5,501 million by \$4,533 million, or by 82.4 percent. We expect that if the State increased its funding by 82.4 percent, local school systems would reduce their property tax rates. Based on some assumptions, we estimate that property taxes would decline by no more than \$3,130 million.

The State can shift some of the required \$4,533 million increase to local school systems by increasing the required local contribution to, say, 10 mills or to 15 mills. The required increase in State spending would be \$3,327 million if local

school systems had to contribute 10 mills, and \$2,120 million if school systems had to contribute 15 mills.

## VI. Summary

Adequate education expenditures are what are required to achieve specified educational objectives, such as a specified pass rate on some exam. While defining adequacy is relatively easy, measuring it is another thing. Several methods have been used to estimate the cost of providing an adequate education, but none of them is without its flaws. Based on adequacy studies for other states, we selected a per student expenditure of \$7,500 (for FY 2004) as a reasonable estimate of the cost of providing an adequate education in Georgia.

To achieve a minimum per student expenditure of \$7,500 for all school districts, would have required an increase of 11.8 percent in total state and local spending on education. This increase is before any adjustment for inflation and enrollment growth. This would be a challenge, but not a huge one. To ensure that all school systems in the State have \$7,500 per student, the State would either have to require a sizable increase in local property taxes, 5 mills on average, or increase its expenditures on education by up to 82.4 percent, which would allow a substantial reduction in property tax, or some combination of the two.

No one knows when or how the Georgia Supreme Court will ultimately rule on the complaint brought by the Consortium of Adequate School Funding in Georgia. But given that most states have lost adequacy suits, the likelihood that Georgia will lose its case is high.

The State has several options, but choosing among these options is not easy. The State can assume that it will win the case as it did in 1981, and thus not do anything until the Court rules. (Simply ignoring the issue is tantamount to assuming the State will win.) If the Court does rule in the State's favor, the State will have no legal requirement to make any changes in the education funding level. However, if the Court rules against the State, the State will be directed to implement changes in education funding, and perhaps major changes. At that point the State can either follow the Court's ruling or resist the Court, as many other states have done.

Alternatively, the State might assume that the Court will rule against it. In this case, the State could choose to begin to address the issue by slowly moving toward an adequate funding of education. But if the Court then rules in favor of

the State, the State will have increased education spending to a level that may not have been necessary.

Deciding how to proceed is a very difficult decision since there is no one correct decision. It is also a very important decision since the expenditures at issue are very substantial.

## Notes

1. For a good discussion of the various approaches see ACCESS (undated), *A Costing Our Primer*. A project of the Campaign for Educational Equity, Teachers College, Columbia University, available at [http://www.schoolfunding.info/resource\\_center/costingourprimer.php3](http://www.schoolfunding.info/resource_center/costingourprimer.php3).
2. As reported by *Education Week*, *Quality Counts*, January 6, 2005 vol. 24, no. 17, page 39.

## References

Sjoquist, David L. and Khan, Abdullah (2006). "Adequate Funding of Education in Georgia: What Does It Mean, What Might It Cost, How Could It Be Implemented?" FRC Report #129. Andrew Young School of Policy Studies, Georgia State University Atlanta, GA

## About the Authors

**David L. Sjoquist** is Professor of Economics, holder of the Dan E. Sweat Distinguished Scholar Chair in Educational and Community Policy, and Director of the Fiscal Research Center of the Andrew Young School of Policy Studies at Georgia State University. He has published widely on topics related to state and local public finance and urban economics. He holds a Ph.D from the University of Minnesota.

**Abdullah Khan** is a PhD student in the Department of Economics at Andrew Young School of Policy Studies at Georgia State University. He holds a MBA from Western Kentucky University and has worked at the United Nations Department of Economic and Social Affairs.

## ABOUT FRC

The Fiscal Research Center provides nonpartisan research, technical assistance, and education in the evaluation and design of state and local fiscal and economic policy, including both tax and expenditure issues. The Center's mission is to promote development of sound public policy and public understanding of issues of concern to state and local governments.

The Fiscal Research Center (FRC) was established in 1995 in order to provide a stronger research foundation for setting fiscal policy for state and local governments and for better-informed decision making. The FRC, one of several prominent policy research centers and academic departments housed in the School of Policy Studies, has a full-time staff and affiliated faculty from throughout Georgia State University and elsewhere who lead the research efforts in many organized projects.

The FRC maintains a position of neutrality on public policy issues in order to safeguard the academic freedom of authors. Thus, interpretations or conclusions in FRC publications should be understood to be solely those of the author. For more information on the Fiscal Research Center, call 404-651-2782.

## RECENT PUBLICATIONS

*Adequate Funding of Education in Georgia: What Does It Mean, What Might It Cost, How Could It Be Implemented?* This report contains a discussion of what adequate funding for education means and how it has been estimated for other states. The report then explores the financial implications for Georgia of funding adequacy. (May 2006)

*Legislative Influences on Performance-Based Budgeting Reform.* Using data from several surveys of the states as well as a survey of Georgia state legislators, this report examines the role of legislators in the implementation of performance-based management and budgeting reforms. (May 2006)

*A Georgia Fiscal History of the Past Forty Years.* This report describes spending and revenue trends through four decades and relates the trends to the agendas of the state's governors. It concludes with a list of challenges for this decade and beyond. (April 2006)

*Gasoline Taxes in Georgia.* This report describes and compares Georgia's fuel tax with other states and evaluates it as a long-term dedicated revenue source for highway funding in the state. (April 2006)

*A Historical Shift Share Analysis for Georgia.* This report analyzes the trends in Georgia's industrial composition and employment over the period 1970-2000 using shift share analysis. (March 2006)

*The Demographics of Georgia III: Lesbian and Gay Couples.* Using 2000 Census data, this report compares the residential patterns, household incomes, house values, property taxes, and parenting patterns of Georgia's same-sex and different-sex couples. (March 2006)

*Analysis of Georgia's Unemployment Insurance Trust Fund Reserves.* This report analyses several aspects of Georgia's Unemployment Insurance Trust Fund, including the structure and the appropriate target level for the Trust Fund balance for the state of Georgia. (March 2006)

*The Demographics of Georgia IV: Hispanic Immigration Economic Policy Issues.* This report analyzes the economic policy issues in education, health care, the labor market, financial services and the fiscal impact arising from the large increase in Hispanic immigration in Georgia. (March 2006)

*Georgia's Taxes Per Capita and Per \$1,000 of Income: Comparisons and Trends.* This report analyzes the trends in Georgia's taxes per capita and taxes per \$1,000 of personal income for the period 1981 – 2002. (February 2006)

*The Demographics of Georgia I: Population in the State of Georgia: Trends and Projections to 2030.* This report explores trends in Georgia population dynamics and projects population growth to the year 2030. (February 2006)

*An Examination of Georgia's Premium Tax.* This brief analyzes the effects of changing the structure the insurance premium tax on tax revenues in Georgia. (February 2006)

*The Fair Tax and Its Effect on Georgia.* This brief analyzes the impacts of a national retail sales tax on Georgians. (December 2005)

*A Tax Limitation for Georgia?* This brief examines the need for a tax limitation in Georgia and the issues of design of tax or expenditure limitations. (December 2005)

*Georgia's Aging Population: What to Expect and How to Cope.* This report analyzes the impacts of Georgia's aging population on state finances. (December 2005)

*Potential Effect of Eliminating the State Corporate Income Tax on State Economic Activity.* This report analyzes the effects to state employment and investment of eliminating the state corporate income tax. (October 2005)

*Financing an Increased State Role in Funding K-12 Education: An Analysis of Issues and Options.* This report presents an analysis of replacing school property tax with alternative state revenue sources. (October 2005)

*Neighborhood Dynamics and Price Effects of Superfund Site Clean-Up.* This report uses census data to analyze the price effects of superfund site clean-up, inclusive of both direct price effects and indirect effects through clean-up's effect on neighborhood demographic transitions and reinvestment in the housing stock. (October 2005)

*Perfect Competition, Spatial Competition, and Tax Incidence in the Retail Gasoline Market.* This report uses monthly gas price data for all 50 U.S. states over the period 1984-1999 to examine the incidence of state gasoline excise taxes. (September 2005)

For a free copy of any of the publications listed, call the Fiscal Research Center at 404/651-4342, or fax us at 404/651-2737. All reports are available on our webpage at: [//frc.aysps.gsu.edu/frc/index.html](http://frc.aysps.gsu.edu/frc/index.html).