

SCHOOL CHOICE

ISSUES

IN THE STATE

The Formula Behind Maryland's K-12 Funding



School Choice for Maryland:

Many agree with the concept. Some disagree. And some simply want more information. As the public debate continues to grow about how best to provide a quality education to all Maryland children, it is important to know the facts about parent choice, and how parent choice programs have had an impact on communities, parents and students around the country. All of this analysis is done with one goal in mind: The best possible education for all of Maryland's children.

Prepared By:
Benjamin Scafidi
Fellow

Friedman Foundation for Educational Choice

November 2008

**Study released jointly by the Friedman Foundation for Educational
Choice and the Maryland Public Policy Institute**

A MESSAGE FROM THE FRIEDMAN FOUNDATION:

OUR CHALLENGE TO YOU

Our research adheres to the highest standards of scientific rigor. We know that one reason the school choice movement has achieved such great success is because the empirical evidence really does show that school choice works. More and more people are dropping their opposition to school choice as they become familiar with the large body of high-quality scientific studies that supports it. Having racked up a steady record of success through good science, why would we sabotage our credibility with junk science?

This is our answer to those who say we can't produce credible research because we aren't neutral about school choice. Some people think that good science can only be produced by researchers who have no opinions about the things they study. Like robots, these neutral researchers are supposed to carry out their analyses without actually thinking or caring about the subjects they study.

But what's the point of doing science in the first place if we're never allowed to come to any conclusions? Why would we want to stay neutral when some policies are solidly proven to work, and others are proven to fail?

That's why it's foolish to dismiss all the studies showing that school choice works on grounds that they were conducted by researchers who think that school choice works. If we take that approach, we would have to dismiss all the studies showing that smoking causes cancer, because all of them were conducted by researchers who think that smoking causes cancer. We would end up rejecting all science across the board.

The sensible approach is to accept studies that follow sound scientific methods, and reject those that don't. Science produces reliable empirical information, not because scientists are devoid of opinions and motives, but because the rigorous procedural rules of science prevent the researchers' opinions and motives from determining their results. If research adheres to scientific standards, its results can be relied upon no matter who conducted it. If not, then the biases of the researcher do become relevant, because lack of scientific rigor opens the door for those biases to affect the results.

So if you're skeptical about our research on school choice, this is our challenge to you: prove us wrong. Judge our work by scientific standards and see how it measures up. If you can find anything in our work that doesn't follow sound empirical methods, by all means say so. We welcome any and all scientific critique of our work. But if you can't find anything scientifically wrong with it, don't complain that our findings can't be true just because we're not neutral. That may make a good sound bite, but what lurks behind it is a flat rejection of science.

The Formula Behind Maryland's K-12 Funding

Benjamin Scafidi

Fellow

Friedman Foundation for Educational Choice

November 2008

THE FRIEDMAN
FOUNDATION
FOR
Educational
Choice



The Maryland Public Policy Institute

THE FRIEDMAN FOUNDATION

Issues in the State

The High Cost of Maryland's Dropout Rate
October 2008

Promising Start: An Empirical Analysis of How EdChoice Vouchers Affect Ohio Public Schools
August 2008

Lost Opportunity: An Empirical Analysis of How Vouchers Affected Florida Public Schools
March 2008

The High Cost of High School Failure in New Jersey
February 2008

The Fiscal Impact of a Tuition Assistance Grant for Virginia's Special Education Students
April 2007

Utah Public Education Funding: The Fiscal Impact of School Choice
January 2007

The High Cost of Failing to Reform Public Education in Indiana
October 2006

Segregation Levels in Milwaukee Public Schools and the Milwaukee Voucher Program
August 2006

Florida's Public Education Spending
January 2006

Spreading Freedom and Saving Money: The Fiscal Impact of the D.C. Voucher Program
January 2006

The Constitutionality of School Choice in New Hampshire
May 2005

An Analysis of South Carolina per Pupil State Funding
February 2004

A Guide to Understanding State Funding of Arizona Public School Students
January 2004

The Effects of Town Tuitioning in Vermont and Maine
January 2002

For a complete listing of the foundation's research please visit our web site at www.friedmanfoundation.org.

Executive Summary

Maryland's school finance system experienced a restructuring in 2002 with the passage of SB 856, the "Bridge to Excellence Act." The "Bridge" Act set the funding amount for "base" students, brought state funding for kindergarten students on par with students in grades 1-12, and collapsed about 50 school funding programs into eight.

The act also increased the state's cigarette tax by 34 cents per pack to fund the increases in school funding to school systems. In exchange for this increased funding, the Bridge Act required the state to hold school systems accountable for meeting student achievement benchmarks, including sanctions for low school performance.

This report describes Maryland's current system of school finance, provides data describing large increases in funding for K-12 education that have occurred since the passage of the 2002 Bridge Act, and offers the recommendation to make Maryland's system of school finance more transparent to parents, educators, and other taxpayers.

The findings in this paper include:

- Spending per student in Maryland has increased significantly since the passage of the Bridge Act. In FY 2003, actual spending per student in Maryland was \$8,344 per student. In 2007 Maryland taxpayers actually spent \$10,371 per student in 2007—about a 10 percent real (inflation-adjusted) increase in spending over this time.
- Funding per student became slightly more equalized across school systems between FY 2003 and FY 2007.
- Maryland school systems used their increased funding to hire more personnel between FY 2003 and FY 2007:
 - The pupil : instructional staff ratio declined by 5.2 percent
 - The pupil : professional support staff ratio declined by 8.8 percent
 - The pupil : instructional assistant ratio declined by 14.4 percent
 - Overall, the pupil : total staff ratio fell from 11.2 in FY 2003 to 10.4 in FY 2007, a 7.1 percent decline.
 - Non-teaching personnel were hired at a much faster rate of increase than teaching personnel between FY 2003 and FY 2007.
- Maryland teachers received a modest real increase in salaries between 2002 and 2005. While inflation increased by 6.7 percent during this time period, Maryland teacher salaries increased by 8.5 percent.

This report makes two recommendations. The first would provide greater transparency in public school funding. The second would allow parents to direct the taxpayer resources devoted to their child's education to the traditional public, charter public, or private school of their choice. This change would further increase parental control and involvement within Maryland's education system.

This latter recommendation provides the ultimate accountability mechanism. It would allow parents to see how their tax dollars are being spent, as well as use the taxpayer funding set aside for their child to attend the school that provides the best education for their child. Under this proposal, parents would be empowered to secure the most education for their child possible using the taxpayer resources devoted to their child. Using the Bridge to Excellence system ("Bridge"), this recommendation could be structured in a way that would not cost Maryland taxpayers any additional resources.

About the Author

Dr. Scafidi is an associate professor and Director of the Education Policy Center in the J. Whitney Bunting School of Business at Georgia College & State University. He is also the Director of the Center for an Educated Georgia, a Fellow with the Friedman Foundation for Educational Choice, and is a member of Georgia's Charter Advisory Committee. His research has focused on education and urban policy. Previously he served as the Education Policy Advisor for Georgia Governor Sonny Perdue and served on the staff of both of Georgia Governor Roy Barnes' Education Reform Study Commissions. He received his Ph.D. in Economics from the University of Virginia and his bachelor's degree in Economics from the University of Notre Dame. Ben and Lori Scafidi and their four children reside in Milledgeville.

Friedman Foundation for Educational Choice



The Friedman Foundation for Educational Choice, dubbed "the nation's leading voucher advocates" by the Wall Street Journal, is a nonprofit organization established in 1996. The origins of the foundation lie in the Friedmans' long-standing concern about the serious deficiencies in America's elementary and secondary public schools. The best way to improve the quality of education, they believe, is to enable all parents with the freedom to choose the schools that their children attend. The Friedman Foundation builds upon this vision, clarifies its meaning to the public and amplifies the national call for true education reform through school choice.

Maryland Public Policy Institute



Founded in 2001, the Maryland Public Policy Institute is a nonpartisan public policy research and education organization that focuses on state policy issues. Our goal is to provide accurate and timely research analysis of Maryland policy issues and market these findings to key primary audiences.

Acknowledgements

The author would like to thank Greg Forster and Christian D'Andrea of the Friedman Foundation.

Table of Contents

- Introduction..... 8
- The Current State of Maryland’s System of School Finance..... 9
 - Foundation Program..... 9
 - Geographical Cost of Education Index (GCEI)..... 10
 - Transportation Funding..... 11
 - Compensatory funding (for low income students), Funding for Limited English Proficient Students and Funding for Special Education Students 12
 - Guaranteed Tax Base Program..... 13
 - Supplemental Grants to School Systems..... 13
- Increases in Spending Per Student for K-12 Education in Maryland..... 14
- Two Recommendations for Increasing Transparency and Accountability of Maryland’s System of School Finance..... 19
- Conclusion..... 21
- Endnotes..... 22

Introduction

In 1999 the state of Maryland created the Commission on Education Finance, Equity, and Excellence which came to be known as the Thornton Commission after Commission chair Dr. Alvin Thornton. The commission's goal was to analyze the system of taxpayer financing of public education in Maryland. After years of study and deliberation, the Commission's final report was issued in early 2002. SB 856 was introduced to implement the Thornton Commission's recommendations; following legislative changes, SB 856, which came to be known as the "Bridge to Excellence Act," was enacted in 2002.¹

The Bridge to Excellence Act (hereafter the "Bridge" Act) provided a large restructuring of the state's school finance system. This restructuring included:

- Establishing a funding amount for a "base" student. The legal term for this base amount is the "target per pupil foundation amount." This target per pupil foundation amount ("Foundation") will increase each year based on increases in the estimated cost of living.
- Setting state funding for kindergarten students on par with funding for students in grades 1-12.
- Collapsing about 50 school funding programs into eight. In addition to the Foundation funding (which serves as the basic funding for Maryland students), the Bridge Act provides operating funding to school systems in the following seven programs:
 - Geographical Cost of Education Index (GCEI) funding, which provides higher levels of funding to school systems estimated to have higher costs of living
 - Transportation funding
 - Compensatory funding based on the number of students in the system eligible for free or reduced price lunch
 - Funding based on the number of students classified as having limited English language proficiency (LEP)
 - Funding based on the number of students classified as needing special education services
 - Funding for a guaranteed tax base program, which provides extra state funding to school systems with relatively low levels of local wealth per student
- Funding for supplemental grants to school systems.
- Increasing the state's cigarette tax by 34 cents per pack to fund the increases in state funding to school systems.

In exchange for this increased funding from state taxpayers, the Bridge Act required the state to hold school systems accountable for meeting student achievement benchmarks, including sanctions for low school performance. Many provisions of the Bridge Act were to be phased in over a period of years, with all provisions to be fully phased in by FY 2009.

This study discusses the provisions of the Bridge Act as currently implemented in Maryland. Maryland has steadily progressed to fully implement the Bridge Act, though certain parts have been delayed due to uncertainty about the state's fiscal situation. This includes potential cuts in state funding for all government services, including K-12 education.

This paper contains three things:

- 1) A description of Maryland's current system of school finance.
- 2) Data regarding the large increases in funding for K-12 education that have occurred since the passage of the 2002 Bridge Act.
- 3) Recommendations for making Maryland's system of school finance more transparent to parents, educators, and other taxpayers and more accountable to parents.

The Current State of Maryland's System of School Finance

This section describes the eight current pieces of the school finance system in Maryland: (i) Foundation Program, (ii) Geographical Cost of Education Index (GCEI), (iii) Transportation funding, (iv) Compensatory funding (for low income students), (v) Funding for Limited English Proficient Students, (vi) Funding for Special Education Students, (vii) Guaranteed Tax Base Program, and (viii) Supplemental Grants to School Systems. Since the funding formulas for (iv), (v), and (vi) are directly analogous to each other, those three programs are discussed together in one subsection.

Foundation Program

The Foundation Program provides base funding for each Maryland student. The legal term for this base funding is the "target per pupil foundation amount." For fiscal years 2008, 2009, and 2010, the target per pupil foundation amount is \$6,694. This means that each school system in Maryland will receive at least \$6,694 for each student enrolled on September 30 of the prior school year. This amount represents funding for each "base" student. A "base" student is one who is not eligible for a free or reduced price lunch, is not limited English proficient, and is not eligible for special education. Students in these other categories receive funding in addition to the "base" amount as discussed later subsections. As a result, the actual state funding per student is much higher. The \$6,694 for each student is funded by state and local taxpayers.

The total expenditures of the Foundation program statewide equal

$$\mathbf{\$6,694 * FTE \text{ students statewide,}}$$

where FTE students statewide equals the number of full-time equivalent students enrolled in Maryland public schools on September 30 of the prior academic year. State taxpayers fund half of this total, or

$$\mathbf{\text{State share of Foundation program} = \frac{1}{2} * \$6,694 * \text{FTE students statewide,}}$$

and local taxpayers fund the other half of the Foundation program

$$\mathbf{\text{Local share of Foundation program} = \frac{1}{2} * \$6,694 * \text{FTE students statewide.}}$$

Put another way, the total cost to Maryland taxpayers of the foundation program is \$6,694*N, where N equals the total number of Maryland public school students. Beginning in FY 2008, 50 percent of the foundation program (\$3,347*N) is funded by local taxpayers, while the remaining 50 percent (\$3,347*N) is funded by state taxpayers. Thus, the state of Maryland will provide local school systems a base total of \$3,347*N in foundation program funding.

The share of the foundation program paid by local taxpayers varies according to the wealth of the school system. Specifically, wealthier communities pay a higher proportion of the \$6,694 that is paid by local taxpayers. The total share of the \$6,694 per pupil foundation amount paid by local taxpayers in a given school system is equal to

$$\mathbf{(\$3,347 * N) * \left(\frac{\text{county wealth}}{\text{statewide wealth}} \right)}$$

That is, if a particular school system had 5 percent of the wealth in Maryland, then the taxpayers in that school system would pay 5 percent of \$3,347*N as its local share of the foundation program, with the state paying the school system the remaining Foundation funding:

$$\mathbf{\$6,694 * n \text{ (TOTAL FUNDING)} - \$3,347 * N * .05 \text{ (LOCAL SHARE)} = \text{The State's share}}$$

where n equals the number of students in the school system. Thus, if a particular school system had 10 percent of the

students in the state, but only 5 percent of the local wealth, that school system would pay only half of the statewide average local contribution per student.

What this means is that Maryland's Foundation program works to equalize operational spending across school districts by requiring a smaller local share for less wealthy school systems—and a larger local share for more wealthy school systems. A school system for which the local wealth per student in that school system was equal to the statewide average wealth would receive exactly \$3,347 per student in Foundation funding from the state. A school system in which the local wealth per student in that school system was less than the statewide average wealth would receive more than \$3,347 per student in Foundation funding from the state, and a school system for which the local wealth per student in that school system was greater than the statewide average wealth would receive less than \$3,347 in state Foundation funding. Regardless of wealth, the state will pay a minimum of 15 percent of the \$6,694 per student to each school system ($.15 * \$6,694 = \$1,004.10$).

The motivation behind this is to provide greater funding for less wealthy districts and less funding for more wealthy ones. In effect, Maryland's Foundation program transfers money from taxpayers in wealthier school systems to students in the less wealthy school systems. As discussed below, Maryland has two additional school funding programs that transfer money from rich to poor—the compensatory funding program and the guaranteed tax base program.

The local share of the Foundation program can be viewed as the “price of admission” to receive state Foundation funds. That is, each school system must levy local taxes large enough to cover their share of the Foundation program. (In Maryland, counties levy local taxes and remit funding to the school system. This detail, while important, does not impact the discussion in this paper. Therefore, for expositional purposes, we will refer to school systems raising local funds via taxation.)

Beginning in FY 2011, that \$6,694 target per student Foundation amount will increase with inflation. Specifically, the increase will be the minimum of the increase in the Consumer Price Index for the Baltimore-Washington area and the implicit price deflator for state and local government expenditures (as estimated by the federal Bureau of Economic Analysis). This increase is capped at a maximum of five percent each year. In addition, Maryland state law does not allow the target per pupil foundation amount to decrease from year to year—unless the Maryland legislature were to change state law (§ 5-202).

As discussed below, all Maryland public school students earn Foundation funding, but some students, based on their characteristics, earn funding from additional programs, and some school systems earn additional funding per student because of their school system characteristics.

This paper refers to “local wealth” throughout. In Maryland, local wealth is defined as the sum of net taxable income, 100 percent of the assessed value of the operating real property of public utilities, 40 percent of the assessed valuation of all other real property, and 50 percent of the assessed value of personal property. Thus, local wealth includes the value of property as well as net taxable income.

Geographical Cost of Education Index (GCEI)

Several Maryland school systems receive an increase in Foundation funding from the state based on a Geographical Cost of Education Index (GCEI). The purpose of the GCEI is to provide additional funding to school systems that are perceived to experience higher costs based on their location. These costs are analyzed by the Maryland State Department of Education (MSDE), which has used private contractors to estimate GCEI since December 31, 2003. The Legislature and Governor ultimately decide GCEI adjustments via statute.

The GCEI adjustments under current Maryland law are listed in table 1.

Prince George's County schools receive the highest GCEI adjustment of 4.8 percent, which means that the amount of the Foundation funding per student in Prince George's would equal $\$6,694 * 1.048 = \$7,015.30$. As shown in table 1, eleven school systems do not receive GCEI adjustments. Thus, Prince George's County schools receive 4.8 percent more in state Foundation funding per student than these eleven school systems.

Table 1

Geographical Cost of Education Index (GCEI) Adjustment by School System			
LEA Name	GCEI Adjustments (%)	LEA Name	GCEI Adjustments (%)
Allegany	0.000	Harford	0.000
Anne Arundel	0.018	Howard	0.015
Baltimore City	0.042	Kent	0.010
Baltimore County	0.008	Montgomery	0.034
Calvert	0.021	Prince George's	0.048
Caroline	0.000	Queen Anne's	0.011
Carroll	0.014	Saint Mary's	0.002
Cecil	0.000	Somerset	0.000
Charles	0.020	Talbot	0.000
Dorchester	0.000	Washington	0.000
Frederick	0.024	Wicomico	0.000
Garrett	0.000	Worcester	0.000

Under current state law, Maryland is funding only 50 percent of the GCEI adjustment in FY 2009 and 60 percent in FY 2010. Thus, Prince George's, for example, is receiving a 2.4 percent adjustment (.5*.048) in FY 2009 and a 2.88 percent adjustment (.6*.048) in FY 2010. The remaining amounts are covered by local funds.

Transportation Funding

Maryland state taxpayers provide student transportation funding to local school systems. Per Maryland state law, these funds can only be used for transportation. Maryland state law lists a total transportation funding "base grant" amount for each school system as of FY 2003. These base grants for student transportation funding are listed in table 2.

Table 2

FY 2003 Base Grants for Student Transportation					
Allegany	\$2,838,327	Charles	\$5,813,595	Prince George's	\$21,018,217
Anne Arundel	\$12,716,216	Dorchester	\$1,465,299	Queen Anne's	\$1,952,856
Baltimore City	\$10,303,967	Frederick	\$6,620,447	Saint Mary's	\$3,673,545
Baltimore	\$15,715,504	Garrett	\$1,886,605	Somerset	\$1,143,107
Calvert	\$3,294,141	Harford	\$7,277,627	Talbot	\$981,334
Caroline	\$1,580,176	Howard	\$8,460,292	Washington	\$3,784,100
Carroll	\$5,738,454	Kent	\$985,359	Wicomico	\$3,001,531
Cecil	\$2,997,774	Montgomery	\$18,663,456	Worcester	\$1,856,978

Each year, these base grants are increased for inflation and adjusted for changes in student enrollment. The inflation adjustment is the percentage increase in the private transportation category for the Consumer Price Index for the Washington-Baltimore metropolitan area as of July of the preceding fiscal year. This inflation adjustment will not be less than 3 percent or greater than 8 percent from one year to the next. This price index is calculated by the Bureau of Labor Statistics of the U.S. Department of Labor.

If a school system is experiencing a decrease in its student population, the state does not reduce the grant for student transportation to the school system from one year to the next. If a school system experiences an increase in its student population, then their grant for student transportation from the state increases in proportion to its increase in students—in

addition to the increase between 3 and 8 percent for inflation. For example, if a school system experienced a 2 percent increase in its student population from one year to the next, then its grant for student transportation would increase by 2 percent in addition to its inflation adjustment. If a school system's school population remained the same, it would receive only the inflation adjustment.

In addition, school districts receive \$1,000 for each disabled student who receives special transportation services. There is no provision in law to increase this amount for inflation.

Compensatory funding (for low income students), Funding for Limited English Proficient (Students) and Funding for Special Education Students

Maryland students who are from low income families, are limited English proficient, or require special education receive additional funding from the state of Maryland in addition to the Foundation funding. The formulas for each of these three funding programs are directly analogous to each other and are explained together here.

The funding formula for these three programs is complicated. For each of these three funding programs, let "A" denote an adjustment factor (explained below). This adjustment factor varies across the three programs. Otherwise, the formulas for these three funding programs are identical.

Each formula has two parts that are multiplied together:

Part 1:

$$\frac{\left(\frac{A * \$6,694 * \text{State Program Enrollment}}{A * \$6,694 * \text{Local Program Enrollment}} \right)}{\left(\frac{\sum \text{Local wealth per pupil}}{\text{Statewide wealth per pupil}} \right)}$$

Where A is the adjustment factor defined by student program

Part 2:

$$\frac{A (* .5) * \$6,694 * \text{Local Program Enrollment}}{\left(\frac{\text{Local wealth per pupil}}{\text{Statewide wealth per pupil}} \right)}$$

Part 1 of the formula multiplies the adjustment factor (A) by the target per pupil foundation amount and the total state enrollment of students in the requisite program (compensatory, LEP, or special education). This is then divided by the product of (A) times the target per pupil foundation amount and the total local enrollment of students in the requisite program. The amount found here is the base Adjusted Foundation Funding for these specialized students. It is then divided by the ratio of local wealth to state wealth. Essentially, part 1 implies that more funding goes to school systems that have lower levels of local wealth per student and more students enrolled in the program.

Part 2 also yields more funding for systems with more students enrolled in the program and with lower wealth per student.

When multiplied together, parts 1 and 2 yield more funding for systems with more students enrolled in the program and lower wealth per student.

The adjustment factors (A) for each program are

Program	Adjustment
Compensatory (Free/Reduced Lunch)	0.97
Limited English Proficient	0.99
Special Education	0.74

What these adjustments indicate is that the state of Maryland provides approximately 48.5 percent more funding statewide for students eligible for free or reduced price lunches than for “base” students. Thus, students who are considered to be in this compensatory program receive 48.5 percent more funding, on average, from the state relative to the state funding in the Foundation program. For LEP students this percentage increase in funding relative to the Foundation program is 49.5 percent, and for special education students, this increase in funding is 37 percent. Each of these percentages is equal to 0.5 multiplied by the adjustments listed above - the 50 percent that is funded by the state.

Each of the percentages in the previous paragraph is a statewide average. Analogous to the Foundation program, school systems who have lower than average wealth per student receive larger per student funding amounts under these three programs, while systems with higher than average wealth receive lower per student funding amounts under these three programs.

Guaranteed Tax Base Program

The guaranteed tax base program provides additional funding to school systems that have a local wealth per pupil that is less than 80 percent of the statewide wealth per pupil. Specifically, state funding under this program equals

$$\text{Local funds raised in excess of local funds generated for the Foundation program} \times [0.8 * \text{statewide wealth per student} - \text{local wealth per student}]$$

This formula provides more funding to school systems that generate more local tax revenues than required for the Foundation program and more funding to school systems that have local wealth per student below 80 percent of the statewide wealth per student. Thus, the more local tax effort and the lower wealth the school system is, then the more state funding they receive under this guaranteed tax base program. If a local system did not generate any local revenues in excess of what is required for the Foundation program and/or if a local system has wealth greater than 80 percent of the statewide wealth per pupil, then it would not receive any Guaranteed Tax Base Program funding.

The state places a maximum funding amount for this program equal to 20 percent of the per pupil Foundation amount—currently \$1,338.80 per student.

Supplemental Grants to School Systems

For fiscal years 2009 and 2010, school systems that receive increases of total state funding for programs (i) – (vii) of less than 1 percent from year to year (or year to year decreases) will receive a supplemental grant that ensures that their increase in total state funding for programs (i) – (vii) are at least 1 percent. From FY 2011 forward, the supplemental grants to school systems will be equal to the FY 2010 supplemental grant, with no provisions for increases based on inflation or enrollment growth. In practice, these supplemental grants will only be given to school systems that experience substantial declines in enrollment from one year to the next, as adjustments for inflation in the foundation program would ensure increases in funding if student enrollments were flat or in slight decline. This is a “hold harmless” program that holds harmless school systems that experience enrollment declines.

In addition to providing funds to school systems under these eight programs for operating expenses, Maryland state taxpayers also provide significant funding for teachers’ retirement and for capital expenses for school construction.

Increases in Spending Per Student for K-12 Education in Maryland

One stated purpose of the Bridge Act was to promote higher and more equal spending per student across Maryland school systems. This section provides the raw spending data for Maryland school systems for the FY 2003 and FY 2007 academic years. Readers will notice moderate to large increases in spending per student—relative to overall inflation—across Maryland school districts during this 5-year time period and slightly greater equity in spending per student in FY 2007 relative to FY 2003.

Table 3 shows three pieces of information for the state of Maryland and for each school system:

- Actual expenditures per student for FY 2003
- What FY 2007 expenditures would have been if they had increased at the rate of overall inflation between FY 2003 and FY 2007
- Actual expenditures per student for FY 2007.

Table 3

Expenditures Per Pupil From All Sources, Actual FY 2003, FY 2007 If Spending Had Increased At The Rate Of Inflation, And Actual FY 2007

LEA Name	Actual Exp Per Pupil 2003	2007 Exp if Increased at Rate of Inflation	Actual Exp Per Pupil 2007
All Public Schools	\$8,344	\$9,415	\$10,371
Allegany	\$7,848	\$8,856	\$10,063
Anne Arundel	\$8,104	\$9,144	\$9,814
Baltimore City	\$8,926	\$10,072	\$10,974
Baltimore County	\$8,138	\$9,183	\$10,079
Calvert	\$7,643	\$8,624	\$9,745
Caroline	\$7,090	\$8,000	\$9,035
Carroll	\$7,335	\$8,277	\$9,278
Cecil	\$7,454	\$8,411	\$9,402
Charles	\$7,360	\$8,305	\$9,246
Dorchester	\$8,252	\$9,311	\$11,004
Frederick	\$7,436	\$8,391	\$9,267
Garrett	\$7,927	\$8,945	\$9,800
Harford	\$7,312	\$8,251	\$9,104
Howard	\$8,957	\$10,107	\$11,232
Kent	\$9,461	\$10,676	\$11,105
Montgomery	\$9,876	\$11,144	\$12,647
Prince George's	\$7,701	\$8,690	\$9,699
Queen Anne's	\$7,894	\$8,908	\$9,213
Saint Mary's	\$7,852	\$8,860	\$9,263
Somerset	\$8,978	\$10,131	\$11,308
Talbot	\$7,910	\$8,926	\$9,697
Washington	\$8,001	\$9,028	\$9,127
Wicomico	\$7,948	\$8,968	\$9,692
Worcester	\$9,418	\$10,627	\$11,907

Source: <http://www.mdreportcard.org/> and CPI-U from the Bureau of Labor Statistics

For all school systems in Maryland, actual expenditures per student in FY 2007 were greater than what would have been spent if expenditures had increased with the overall U.S. rate of inflation. The magnitudes of these increases are shown in table 4.

As shown in table 5, actual spending per student rose 24.3 percent across all Maryland school systems between FY 2003 and FY 2007 (column 1), while overall prices in the U.S. increased by only 12.84 percent (column 2). The difference between this actual spending increase and overall U.S. inflation was 11.5 percent (column 3). This is a large real increase in spending per student in a short period of time.

Table 4

Wealth Per Student and Spending Per Student FY 2007		
LEA Name	Wealth Per Student	FY 2007 Spending Per Student
Worcester	\$757,781	\$11,907
Talbot	\$645,227	\$9,697
Montgomery	\$490,607	\$12,647
Kent	\$404,349	\$11,105
Anne Arundel	\$402,415	\$9,814
Howard	\$372,982	\$11,232
Queen Anne's	\$366,636	\$9,213
Baltimore County	\$337,668	\$10,079
ALL PUBLIC SCHOOLS	\$318,810	\$10,371
Garrett	\$294,643	\$9,800
Calvert	\$281,699	\$9,745
Frederick	\$277,483	\$9,267
Carroll	\$272,870	\$9,278
Harford	\$267,832	\$9,104
Saint Mary's	\$255,632	\$9,263
Washington	\$250,893	\$9,127
Charles	\$250,746	\$9,246
Dorchester	\$250,094	\$11,004
Cecil	\$241,918	\$9,402
Prince George's	\$235,209	\$9,699
Wicomico	\$216,405	\$9,692
Somerset	\$193,971	\$11,308
Caroline	\$190,934	\$9,035
Allegany	\$189,864	\$10,063
Baltimore City	\$170,179	\$10,974

Table 5 contains information on the wealth per student and the spending per student for each school system. This table is sorted from the most wealthy school system to the least wealthy school system. The state average wealth per student is \$318,810 per student, and the state average spending per student is \$10,371. The eight school systems with above average wealth per student spend an average of \$10,712 per student, while the sixteen school systems with below average wealth spend an average of \$9,750 per student. Although Maryland's system of school finance does equalize spending per student, there is still a positive relationship between wealth and spending. That is, more wealthy school systems tend to spend more per student than less wealthy school systems. However, the two least wealthy school systems, Allegany and Baltimore City spend more per student than Talbot, which is the second wealthiest school system.

Table 5 also shows that spending per student is far more equal across school systems than wealth. Specifically, the wealthiest eight school systems have on average \$472,208 of wealth per student, while the sixteen least wealthy school systems have about half as much wealth—\$240,023 per student. As the wealthiest school systems are roughly twice as wealthy as the poorest school systems, their spending per student is only about 10 percent higher. These data further show the extent to which Maryland's system of school finance is equalizing.

Table 6 compares the actual spending per student in FY 2003 with the percentage increases in spending that occurred between FY 2003 and FY 2007. If spending was becoming equalized between 2003 and 2007, then initially lower spending systems would have experienced larger percentage increases in spending—and the correlation between 2003 spending per student and increases in spending would be negative. As shown in table 5, there was not really a large correlation between increases in spending per student and initial spending. The actual correlation between columns 1 and 2 is slightly negative (-0.037); that is, the lowest spending systems in 2003 experienced only slightly larger increases in spending relative to the higher spending districts. Thus, while there was a large increase in spending between 2003 and 2007, there was not a large increase in equity during that time period.

Table 5

Wealth Per Student and Spending Per Student FY 2007			
LEA Name	Percent Increase in Actual Spending Per Student, FY 03 to FY 07	Percent Increase in Cost of Living (% increase in CPI-U)	Difference (1) - (2)
All Public Schools	24.3%	12.84%	11.5%
Allegany	28.2%	12.84%	15.4%
Anne Arundel	21.1%	12.84%	8.3%
Baltimore City	22.9%	12.84%	10.1%
Baltimore County	23.9%	12.84%	11.0%
Calvert	27.5%	12.84%	14.7%
Caroline	27.4%	12.84%	14.6%
Carroll	26.5%	12.84%	13.6%
Cecil	26.1%	12.84%	13.3%
Charles	25.6%	12.84%	12.8%
Dorchester	33.3%	12.84%	20.5%
Frederick	24.6%	12.84%	11.8%
Garrett	23.6%	12.84%	10.8%
Harford	24.5%	12.84%	11.7%
Howard	25.4%	12.84%	12.6%
Kent	17.4%	12.84%	4.5%
Montgomery	28.1%	12.84%	15.2%
Prince George's	25.9%	12.84%	13.1%
Queen Anne's	16.7%	12.84%	3.9%
Saint Mary's	18.0%	12.84%	5.1%
Somerset	26.0%	12.84%	13.1%
Talbot	22.6%	12.84%	9.8%
Washington	14.1%	12.84%	1.2%
Wicomico	21.9%	12.84%	9.1%
Worcester	26.4%	12.84%	13.6%

Source: <http://www.mdreportcard.org/> and CPI-U from the Bureau of Labor Statistics

Table 6

Comparison Between Initial 2003 Spending And Increases In Spending		
LEA Name	Actual FY 2003 Spending Per Pupil	Percent Increase in Spending FY 2003 to 2007
ALL PUBLIC SCHOOLS	\$8,344	24.3%
Allegany	\$7,848	28.2%
Anne Arundel	\$8,104	21.1%
Baltimore City	\$8,926	22.9%
Baltimore County	\$8,138	23.9%
Calvert	\$7,643	27.5%
Caroline	\$7,090	27.4%
Carroll	\$7,335	26.5%
Cecil	\$7,454	26.1%
Charles	\$7,360	25.6%
Dorchester	\$8,252	33.3%
Frederick	\$7,436	24.6%
Garrett	\$7,927	23.6%
Harford	\$7,312	24.5%
Howard	\$8,957	25.4%
Kent	\$9,461	17.4%
Montgomery	\$9,876	28.1%
Prince George's	\$7,701	25.9%
Queen Anne's	\$7,894	16.7%
Saint Mary's	\$7,852	18.0%
Somerset	\$8,978	26.0%
Talbot	\$7,910	22.6%
Washington	\$8,001	14.1%
Wicomico	\$7,948	21.9%
Worcester	\$9,418	26.4%

Correlation between 2003 spending and increase in spending = -.037

Table 7

Pupil : Instruction Staff Ratios By School System, FY 2003 and FY 2007			
LEA Name	FY 2003 Pupil-Instructional Staff Ratio	FY 2007 Pupil-Instructional Staff Ratio	Percent Change FY 03 to FY 07
All Public Schools	15.2	14.4	-5.2%
Allegany	14.5	12.8	-12.0%
Anne Arundel	15.9	14.7	-7.7%
Baltimore City	14.5	13.9	-3.9%
Baltimore County	14.7	14.0	-5.3%
Calvert	16.3	16.3	-0.2%
Caroline	15.4	14.5	-5.7%
Carroll	16.5	14.6	-11.5%
Cecil	14.5	14.2	-1.8%
Charles	17.0	16.0	-5.6%
Dorchester	14.4	13.5	-6.2%
Frederick	15.3	15.3	0.3%
Garrett	13.4	12.7	-5.2%
Harford	15.8	14.3	-9.7%
Howard	14.2	13.6	-3.8%
Kent	14.5	13.2	-8.7%
Montgomery	15.0	14.2	-5.2%
Prince George's	15.8	14.7	-7.2%
Queen Anne's	15.9	15.5	-2.3%
Saint Mary's	15.9	16.3	2.4%
Somerset	13.7	12.4	-9.5%
Talbot	14.3	14.6	2.0%
Washington	14.3	14.8	3.3%
Wicomico	13.5	13.2	-2.2%
Worcester	13.2	11.9	-10.0%

Table 8

Pupil : Professional Support Staff Ratios by School System, FY 2003 and FY 2007			
LEA Name	FY 2007 Pupil-Professional Support Staff Ratio	FY 2003 Pupil-Professional Support Staff Ratio	Percent Change FY 03 to FY 07
ALL PUBLIC SCHOOLS	97.1	88.5	-8.8%
Allegany	88.5	76.3	-13.7%
Anne Arundel	95.2	90.1	-5.4%
Baltimore City	94.3	75.2	-20.3%
Baltimore County	87.0	85.5	-1.7%
Calvert	107.5	102.0	-5.1%
Caroline	101.0	93.5	-7.5%
Carroll	96.2	90.1	-6.3%
Cecil	98.0	95.2	-2.9%
Charles	109.9	101.0	-8.1%
Dorchester	89.3	86.2	-3.4%
Frederick	106.4	102.0	-4.1%
Garrett	117.6	112.4	-4.5%
Harford	119.0	99.0	-16.8%
Howard	84.0	80.6	-4.0%
Kent	78.1	92.6	18.5%
Montgomery	91.7	83.3	-9.2%
Prince George's	106.4	90.1	-15.3%
Queen Anne's	113.6	112.4	-1.1%
Saint Mary's	97.1	100.0	3.0%
Somerset	89.3	91.7	2.8%
Talbot	99.0	93.5	-5.6%
Washington	103.1	106.4	3.2%
Wicomico	100.0	96.2	-3.8%
Worcester	92.6	84.7	-8.5%

Table 9

Pupil : Instructional Assistant Ratios By School System, FY 2003 and FY 2007

LEA Name	FY 2003 Pupil-Instructional Assistant Ratio	FY 2007 Pupil-Instructional Assistant Ratio	Percent Change FY 03 to FY 07
ALL PUBLIC SCHOOLS	76.3	65.4	-14.4%
Allegany	40.7	50.8	24.9%
Anne Arundel	103.1	80.6	-21.8%
Baltimore City	67.6	50.5	-25.3%
Baltimore County	96.2	99.0	3.0%
Calvert	57.5	51.8	-9.8%
Caroline	52.9	52.9	0.0%
Carroll	106.4	80.6	-24.2%
Cecil	91.7	69.4	-24.3%
Charles	93.5	70.4	-24.6%
Dorchester	86.2	79.4	-7.9%
Frederick	104.2	67.6	-35.1%
Garrett	58.5	59.2	1.2%
Harford	81.3	59.5	-26.8%
Howard	45.0	41.3	-8.3%
Kent	47.2	51.3	8.7%
Montgomery	69.4	61.3	-11.7%
Prince George's	96.2	86.2	-10.3%
Queen Anne's	79.4	74.1	-6.7%
Saint Mary's	94.3	66.7	-29.3%
Somerset	54.9	46.5	-15.3%
Talbot	84.0	126.6	50.6%
Washington	80.6	84.0	4.2%
Wicomico	41.7	34.4	-17.5%
Worcester	38.3	35.2	-8.1%

Table 10

Pupil : Total—Staff Ratios By School System, FY 2003 and FY 2007

LEA Name	FY 2003 Pupil-Staff Ratio	FY 2007 Pupil-Staff Ratio	Percent Change FY 03 to FY 07
ALL PUBLIC SCHOOLS	11.2	10.4	-7.1%
Allegany	9.5	9.0	-5.7%
Anne Arundel	12.1	10.9	-9.3%
Baltimore City	10.6	9.5	-10.0%
Baltimore County	11.1	10.7	-4.0%
Calvert	11.4	11.1	-2.8%
Caroline	10.6	10.1	-4.8%
Carroll	12.4	10.9	-12.6%
Cecil	11.1	10.5	-5.4%
Charles	12.7	11.6	-9.0%
Dorchester	10.8	10.2	-6.1%
Frederick	11.8	11.1	-6.0%
Garrett	10.0	9.6	-4.1%
Harford	11.9	10.3	-13.4%
Howard	9.6	9.1	-4.8%
Kent	9.7	9.4	-2.7%
Montgomery	10.9	10.1	-6.8%
Prince George's	12.1	11.0	-8.6%
Queen Anne's	11.9	11.5	-2.9%
Saint Mary's	11.9	11.6	-3.0%
Somerset	9.8	8.8	-9.5%
Talbot	10.9	11.5	5.5%
Washington	10.9	11.3	3.4%
Wicomico	9.2	8.7	-6.2%
Worcester	8.9	8.0	-9.4%

This significant increase in spending per student between 2003 and 2007 has manifested itself through decreases in pupil-staff ratios. In particular, there were fewer pupils per instruction staff, fewer pupils per instructional support staff, and fewer pupils per instructional assistants statewide in 2007 relative to 2003. Put differently, these substantial increases in spending led to the hiring of more teachers, support staff, and instructional assistants. Decreases in these ratios and in pupils per total staff are shown in tables 7-10.

As shown in table 7, Maryland experienced a 5.2 percent decline in the pupil-instructional staff ratio between FY 2003 and 2007. This ratio declined from 15.2 students per instructional staff in 2003 to 14.4 students per instructional staff in 2007. Table 8 shows that there was an 8.8 percent decline in the pupil-professional support staff ration between FY 2003 and 2007. The decline in the pupil-instructional assistant ratio was 14.4 percent over this time period (Table 9). Thus, the increased staffing for instructional personnel was not as great as the staffing increases for professional support staff and instructional assistants. Overall, these staffing ratios declined by 7.1 percent between FY 2003 and 2007 (table 9). As shown in tables 7 through 10, these increases in staffing varied substantially across school systems.

There is some evidence that this significant increase in spending per student has also manifested itself in terms of modest inflation adjusted salary increases for teachers. According to the American Federation of Teachers, the average salary for teachers in Maryland was \$48,251 in FY 2002 and \$52,330 in FY 2005. This 8.5 percent increase in average salaries was greater than the 6.7 percent overall rate of U.S. inflation during that time period.

Two Recommendations for Increasing Transparency and Accountability of Maryland's System of School Finance

The 2002 Bridge Act made large strides simplifying Maryland's school finance system. For example, there were about 50 state spending programs before the Bridge Act, and currently there are eight. Despite this simplification, Maryland's school finance system remains highly difficult for policymakers, parents, rank and file educators, and other citizens to understand. Having a simple school finance system is good policy in that it is transparent to parents, educators, and other taxpayers. In addition, simplicity allows parents to directly hold schools accountable for their use of resources.

However, these measures of accountability fail to reach a universal audience. Parents have the right to understand how their tax dollars are being spent, and to evaluate whether or not they are getting their money's worth in public schools. Through increasing the transparency of Maryland's funding formula, a burden of accountability is placed on Maryland's public schools. By making per student revenue more visible to the public eye, schools will be forced to justify their public spending through academic results.

One such way to do this would come at little expense to the state of Maryland; *the creation a website for parents that shows how much state and local funding is dedicated to each child.*

Maryland could create a simple web-based tool that allows parents to see how much state and local taxpayers are spending per child. The virtue of this web-based tool is that it would empower parents to directly hold schools accountable. This transparency would provide parents with a better understanding of the states school funding system. With information on how much state and local taxpayers are devoting to their child's education, parents would be able to ask whether their child was getting their money's worth.

Another aspect of this recommendation is that parents (or prospective parents) could use this information when they decide where to live and how to voice their views on spending to state and local officials. They would be able to more clearly see differences in spending per student from district to district and use that information to decide where to live or whether the level of spending is excessive for the education being provided. More accessible information would create better decision making across the state.

Unfortunately, just being informed is not enough for most families. Many families that cannot afford private schools cannot just easily change school districts whenever they'd like because their local schools aren't providing an educational value. However, an increased sense of accountability in these schools should help spur changes. If a substantial increase in student achievement fails to occur, then public demand will grow for school choice options. This leads to our second recommendation.

This recommendation is a larger change, which can be termed "student-based financing:" *Allow parents to take the tax dollars devoted to their child's education and use those resources to attend the traditional public, charter public, or private school of their choice.* This recommendation is the ultimate accountability mechanism in that it would allow parents to use tax dollars devoted to their child to choose the school that provides the best education for that child. Under this proposal, parents would be empowered to secure the education that best meets their child's needs.

If Maryland wished to work within the framework of Bridge, this recommendation would provide weighted student-based funding for each student. Students with certain characteristics—special needs, low income, etc. would receive larger grants than students without these characteristics. If Maryland restricted this student-based funding to only students currently enrolled in a public school, then this would not cost Maryland taxpayers any additional money. Students and their parents would decide which schools served their needs the best—that could mean smaller class sizes with fewer administrators, larger class sizes with better paid teachers, school exactly like the schools they attend now, etc. Under this recommendation, parents and their families would decide what the best mix of educational resources is, rather than leaving it in the hands of administrators.

Given the current success of voucher programs in Cleveland and Milwaukee, adapting a program to fit the needs of a major urban center like Baltimore would be a simple installation. This program could give students in low performing schools the opportunity to change schools while giving public schools incentives to improve through competition. Giving parents the ability to choose the education they deem best for their children would force all schools to improve in order to retain students.

Additionally, a tax credit scholarship program, which is present in states such as Arizona, Georgia, and Pennsylvania, would also promote the same outcomes. Both of these options—vouchers or tax credits—would give parents greater autonomy over their children's educations, improve accountability within the public schools, and improve the status of education throughout Maryland without putting an additional financial burden on Maryland's taxpayers.

Though a voucher or tax credit scholarship program would involve a start-up cost in year one of the program—public schools in Maryland are funded based on the number of students enrolled on September 30 of the prior school year—this would still benefit public schools. Traditional public schools who lose students via vouchers or tax credits would be receiving foundation funds for children they do not serve in that first year. While this puts an additional burden on the funding of a school choice program, it also pays dividends to public schools, which benefit from increased per student funding through a decrease in students.

Conclusion

This study provides a description of the system of school finance in Maryland, information about changes in spending and resources devoted to education between the creation of the Bridge Act and FY 2007, and recommendations to increase the transparency and accountability in Maryland's school finance system. While Maryland's school finance system is complex—it contains eight separate funding programs for operating expenses and several of the programs are highly complex by themselves—it is much simpler than it was before the passage of the 2002 Bridge to Excellence Act.

The 2002 Bridge Act led to a large increase in funding for local school systems statewide. Between FY 2003 and FY 2007, spending on public education in Maryland increased almost twice as fast as the rate of inflation. However, some school systems experienced very large increases in real spending per student, while others experienced more modest increases in real spending per student. A significant public policy question is whether these increases in real (inflation-adjusted) spending

per student were accompanied by any sufficient increases in student outcomes. The equity in spending across school systems increased modestly between FY 2003 and 2007.

The large increases in per student spending statewide led to significant increases in staffing that resulted in a 7 percent reduction in pupil-staff ratios between FY 2003 and 2007. Increases in instructional personnel were not as large as the increases in staffing of instructional assistants and professional support staff. While all Maryland school systems experienced increases in staffing during this time period, there was a large variance in the increases in staffing across school systems. Between FY 2002 and 2005, there was a modest real (adjusted for inflation) increase in average Maryland teacher salaries—8.5% increase in salaries relative to a 6.7% increase in the cost of living. On an annual basis, teacher salaries increased by an average of 2.75 percent per year, while the cost of living increased by slightly less than 2.2 percent per year.

In exchange for this large increase in state funding, the Bridge Act was responsible for increasing the accountability of local schools through increased public scrutiny for meeting or not meeting student achievement goals. In cases of extreme and persistent low performance, the state can take over school systems. However, in practice, local schools in Maryland do not seem to be held any more accountable than what is required under the federal No Child Left Behind law.

Endnotes

¹ A description of the Thornton Commission, meeting minutes, research documents, interim and final reports, and SB 856 are available at <http://mlis.state.md.us/other/education/>

THE FRIEDMAN FOUNDATION WELCOMES YOUR SUPPORT

As a nonprofit 501(c)(3) organization, we rely solely on the generous support of our donors to continue promoting the Friedman's vision for school choice throughout the country. Please send your tax-deductible gift today and help interject liberty and choice into our education system. Giving parents the freedom to choose the school that works best for their children is our goal, and with your help we can make it happen.

Dr. Milton Friedman, Founder
Nobel Laureate and Founder of the Friedman Foundation

BOARD OF DIRECTORS

Dr. Rose D. Friedman, Co-Chairperson
Noted Economist and Founder of the Friedman Foundation

Dr. Patrick Byrne, Co-Chairperson
Chairman of the Board and President, Overstock.com

Gordon St. Angelo
President & CEO

Janet F. Martel, Vice Chairperson
Attorney

Lawrence A. O'Connor, Jr., Treasurer
Executive Director, Butler Business Accelerator

Charles H. Brunie
Brunie Associates

Robert C. Enlow
Executive Director & COO

Dr. David D. Friedman
Professor, Santa Clara University

William J. Hume
Chairman of the Board, Basic American, Inc.

Samuel H. Husbands, Jr.
President, Husbands Capital Markets

Sandra Jordan
Owner & Creative Director, Jordan Winery

Howard S. Rich
Rich & Rich

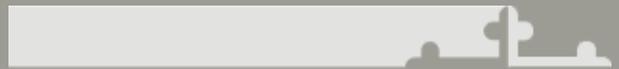
Fred Reams
Reams Asset Management

Dr. Michael Walker
Senior Fellow, The Fraser Institute

THE FRIEDMAN
FOUNDATION
FOR
Educational
Choice

Friedman Foundation for Educational Choice

One American Square, Suite 2420
Indianapolis, IN 46282
Phone: 317-681-0745 • Fax: 317-681-0945
www.friedmanfoundation.org



The Maryland Public Policy Institute

Maryland Public Policy Institute

1 Research Court, Suite 450
Rockville, Maryland 20850
Phone: 240-686-3510 • Fax: 240-686-3511
www.mdpolicy.org

**THE FRIEDMAN
FOUNDATION**

One American Square, Suite 2420
Indianapolis, IN 46282

Nonprofit Org.
U.S. Postage
PAID
Indianapolis, IN
Permit #8478