POLICY BRIEF

E.G. West Institute for Effective Schooling

THE HEARTLAND INSTITUTE

April 2011

Budget Impact of the Texas Taxpayers' Savings Grant Program

By
John Merrifield, Ph.D. and Joseph L. Bast*

This study reports the results of an independent examination of the likely savings to taxpayers of an "education savings grant program" for the State of Texas. The authors do not comment on any aspect of the bill other than its likely effect on the state government's biannual budget. This report neither endorses nor questions the specific language or design features of the proposed legislation.

1. Summary of Findings

Net savings to the state would be approximately $2 billion in the first two years of the program.

The Taxpayers' Savings Grant Program (TSGP) is a very concise piece of legislation, apparently intended to address the state's looming biannual budget deficit by reducing enrollment and associated costs in the state's public K-12 schools at a time of budget shortfalls. By reimbursing parents and legal guardians for "the amount of actual tuition costs or sixty percent of the state average per-pupil maintenance and operations expenditure, whichever is less," the state should save money every time a child is moved from a public to a private school.

The TSGP was submitted to the authors for an independent examination of its likely fiscal impact. Using the assumptions and methodology described in this report, government data on enrollment levels, and three independent estimates of the probability of parents choosing private schools under such a program, the authors determine the program would generate a net savings to the state of approximately $2.0 billion in the first two years.

---

* **John Merrifield, Ph.D.** is a professor of economics at the University of Texas at San Antonio. **Joseph L. Bast** is president of The Heartland Institute, a nonprofit research organization with offices in Chicago and Washington, DC. More complete biographies appear on page 19.

If the program started in time for the 2011-12 school year, between 6.3 and 7.6 percent of public school students would be using savings grants to transfer to private schools in 2012-13. This means between 314,245 and 382,501 students would participate in the program that year. The TSGP would increase private school enrollment by between 133 and 163 percent in the second year of the program.

Experiences in Milwaukee and the Edgewood School District near San Antonio point to slightly higher rates of private school enrollment growth than the estimate we took from peer-reviewed literature to reach our savings estimate. Using the Edgewood experience would increase the forecast of two-year fiscal savings to $2.2 billion. Using the Milwaukee experience would yield a two-year fiscal savings of $2.3 billion.

The rapid increase in demand for private schooling is unlikely to outpace that sector's ability to expand. We believe tuition prices will rise by no more than 4 percent of the difference between average private school tuition and the amount of the education savings grant. It is possible that some parents will act strategically to qualify their children for the program by withdrawing them from private schools for one year. We estimate that this could reduce savings to state taxpayers by no more than 10 percent. Biennial savings still amount to about $2 billion, and would rise in future years.

The TSGP would increase private school enrollment by between 133 and 163 percent in the second year of the program.

Part 2 summarizes the features of the proposed plan that are relevant to this analysis. Part 3 estimates the effect of the plan on the price of tuition at private schools. Part 4 estimates the effect of lower tuition prices on the demand for private schooling. Part 5 estimates the net impact of the program on the state's taxpayers. Part 6 is a brief summary and conclusion.

2. The Taxpayers' Savings Grant Program Summarized

Proposed legislation creating the Taxpayers' Savings Grant Program, as it was submitted to us for analysis, reads as follows:

> 1. Any parent or legal guardian of a school-age child who resides in Texas and is entering kindergarten or attended a public school for all of the academic year prior to their participation in this program, who is willing to help the State of Texas save money by accepting less than the average per-pupil maintenance and operations expenditure in the district in which they reside, may receive reimbursement from the state for tuition paid for enrollment of said child at a private school in the amount of actual tuition or sixty percent of the state average per-pupil maintenance and operations expenditure, whichever is less, and the gratitude of the State of Texas.
>
> 2. Within 45 days of the passage of this Act, the Comptroller shall adopt rules solely to

effectuate reimbursement and prevent fraud in financial transactions under this program. Such rules shall include the method for counting Taxpayers' Savings Grant students in the Foundation School Program and the consequent savings therefrom. No funds from the Available School Fund shall be used for Taxpayers' Savings Grants.

The TSGP apparently is intended to address the state's looming two-year budget deficit, estimated at up to $27 billion,[1] by reducing enrollment in and the associated costs of the state's public K-12 schools. By reimbursing parents and legal guardians for "the amount of actual tuition costs or sixty percent of the state average per-pupil maintenance and operations expenditure, whichever is less," the state expects to save money every time a child is moved from a public to a private school.

It is important to note that the TSGP limits participation to the parents of a child who "resides in Texas and is entering kindergarten or attended a public school for all of the academic year prior to their participation in this program." This means children who are already enrolled in private schools are not eligible for the tuition assistance. Also, the proposal does not rule out allowing parents to add their own money to the savings grant in cases when tuition exceeds the amount of the grant.

How much the TSGP would save the state depends on a number of factors and variables, some of them known and some of them not previously estimated. They include:

How much the TSGP would save the state depends on a number of factors and variables, some of them known and some of them not previously estimated.

1. How much the state currently spends per student in public schools;

2. How much private schools charge in tuition;

3. How many parents are likely to move their children from public to private schools;

4. Whether private schools will increase their tuition in response to the program; and

5. Whether parents with children already in private schools will move them to public schools for a year to qualify for savings grants in later years.

Public K-12 schools in Texas are funded by a combination of state and local sources. The formula used to determine how much the state pays, or how much each district pays to the state,

[1] Ed Sterling, "Comptroller lays out options for Texas budget writing panel," *Hays Free Press,* March 9, 2011, http://haysfreepress.com/archives/16927.

is complicated.[2] As parents decide to utilize the savings grants, the money due to or from the district will change based on changes in enrollment in the Foundation School Program (FSP). This program determines the funding each district receives from or pays to the state.

We have incomplete information about private school tuition levels in Texas. We do know tuition varies widely by grade level (elementary schools charge considerably less than high schools) and by type (Catholic schools charge less than independent private schools). This study depends primarily on a national enrollment-weighted average tuition amount as reported by the U.S. Department of Education.

To forecast the savings generated by the Taxpayers' Savings Grant Program, we first need to know how many parents and guardians would apply for grants.

How many parents are likely to move their children to private schools depends on what economists call the price elasticity of demand for private schools – the ratio of the change in the quantity consumed and the change in the price per unit consumed. There is disagreement in the literature about the value of that ratio. Estimates also can be derived from school choice programs already operating in other states or on a smaller scale in Texas, but those programs have different eligibility rules and tuition grant levels.

The impact of this program on private school tuition depends on the price elasticity of supply for private schools – the ratio of the change in the quantity provided and the change in the price per unit that consumers pay. This value can be surmised to be quite large in the long run, but it has not been rigorously estimated for short periods immediately following large demand changes.

Some parents with children already in private schools might be prompted to enroll them in public schools for a year to qualify them for savings grants in future school years. This sort of strategic behavior is difficult to predict, but we estimate it would reduce total savings from the program by no more than 10 percent, and that reduction in savings would diminish over time.

3. Private School Tuition and Enrollment

To forecast the savings generated by the Taxpayers' Savings Grant Program, we first need to know how many parents and guardians would apply for grants. Determining this requires knowing how much the grants would reduce the tuition price of a student attending a private school. By starting with an estimation of the impact of the TSGP on the price of tuition at private schools, we can then calculate how many students would be moved from public to private schools under the TSGP, and then how much their participation would save the state treasury.

---

[2] See Texas Education Agency, Office of School Finance, *School Finance 101: Funding of Texas Public Schools,* January 2011, http://www.tea.state.tx.us/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=2147495107&libID=2147495104.

Estimated mean average tuitions in parochial and independent private schools in Texas are presented in Figure 1. Estimates for parochial schools were provided by the Archdiocese of San Antonio in March 2011 and do not include non-Catholic religious schools. However, Catholic schools nationally enroll more students than all other religiously affiliated schools combined – approximately 42 percent of total private school enrollment, compared to 38 percent for all others – and we believe their tuition figures are a reasonably close estimate of average tuition at all parochial schools in Texas.

The only reliable estimates we were able to find for tuition at independent private schools we were able to find are national averages that probably are higher than actual tuition in Texas.[3] The national enrollment-weighted national average private school tuition in 2008-09 was $8,549. Although this is probably higher than average private school tuition in Texas, we use this number as the best available estimate from a public source. Using the Consumer Price Index, we estimate the 2011-12 average tuition to be 5.6 percent higher, or $9,030.

Figure 1
Average Private School Tuition and
Public School Per-Pupil Maintenance and Operations Spending in Texas

Type of School	Average Tuition/Spending
Elementary parochial schools (Texas)	$3,983
Elementary independent schools (National)	$15,945
Secondary parochial schools (Texas)	$6,615
Secondary independent schools (National)	$27,302
Enrollment-weighted for all private schools (National, 2008-09)	$8,549
Enrollment and inflation-adjusted average for all private schools (National, 2011-12)	$9,030
Public school per-pupil total spending (Texas, 2008-09)	$11,567
Public school per-pupil maintenance and operations spending (Texas, 2008-09)	$8,572
Maximum TSGP grant	$5,143

Sources: Average tuition for parochial schools provided to the authors on March 8, 2011 by the Archdiocese of San Antonio; independent school tuition is U.S. national average from U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 2009*, Table 59. Inflation adjustment is authors' calculations. Public school spending estimate is for 2008-09, from Texas Education Agency, *2009-10 Texas Public School Statistics, Pocket Edition,* http://ritter.tea.state.tx.us/perfreport/pocked/2010/pocked0910.pdf.

[3] The tuition reported by Catholic schools in Texas is approximately 20 percent less than the national average, which suggests that independent school tuition is similarly lower. As the subsequent analysis shows, 60 percent of current public school spending is less than 80 percent of the national estimate of tuition at independent schools, so that cap will determine how much tuition is reimbursed.

Figure 1 also presents estimated state government spending on public schools. Total spending by all levels of government in Texas on public schools in 2008-09 was $54.7 billion and total enrollment that year was 4,728,204, so average per-student annual spending that year was $11,567.[4] We believe this probably understates true per-pupil spending, since other researchers have pointed out that state government estimates of this kind leave out many expenses.[5]

We report in Figure 1, and will use in our analysis, the state's estimate of per-pupil maintenance and operations expenditures of $8,572 in 2008-09.[6] Texas has a Foundation School Program that equalizes per-pupil spending on operations and management, whereas other costs such as interest and "sinking fund" are funded with local bonds and some state appropriations. We believe this funding formula means state government saves at least $8,572 every time a student leaves the public school system.

The TSGP allows parents and guardians of school-age children to apply for a grant equal to tuition at a private school or 60 percent of the state average per-pupil maintenance and operations spending, whichever is less. Sixty percent of $8,572 is $5,143. This is more than the cost of tuition at elementary parochial schools, less than tuition at parochial secondary schools, and considerably less than tuition at elementary and secondary independent schools.

Figure 2 shows the effect of the TSGP on the cost of tuition. The reduction in tuition prices ranges from 100 percent for parochial elementary schools to only 19 percent for independent secondary schools. The average is 57 percent.

Figure 2
Effect of the Savings Grants on
Cost of Private School Tuition in Texas

Type of School	Average Tuition	Savings Grant	Price Reduction
Elementary parochial schools (Texas)	$3,983	$3,983	100%
Elementary independent schools (National)	$15,945	$5,143	32%
Secondary parochial schools (Texas)	$6,615	$5,143	78%
Secondary independent schools (National)	$27,302	$5,143	19%
Enrollment and inflation-adjusted for all private schools (National)	$9,030	$5,143	57%
Sources: Same as Figure 1 and authors' calculations.			

[4] Texas State Comptroller, *Financial Allocation Study for Texas (FAST),* Part 1, Exhibit 4, http://www.fastexas.org/study/exec/exhibits/ex4.php.

[5] See Adam B. Schaeffer, "They Spend WHAT? The Real Cost of Public Schools," *Policy Analysis* No. 662, Cato Institute, March 10, 2010, http://www.cato.org/pub_display.php?pub_id=11432.

[6] Texas Education Agency, *2009-10 Texas Public School Statistics, Pocket Edition,* http://ritter.tea.state.tx.us/perfreport/pocked/2010/pocked0910.pdf.

The U.S. Department of Education estimates private schools in Texas enrolled 235,241 students in 2007-08.[7] By assuming that the national average distribution of students between elementary and secondary schools is the same as in Texas, we can estimate total private school enrollment figures by type of school, shown in Figure 3.

Figure 3
Enrollment in Private K-12 Schools in Texas

Type of School	Enrollment
Elementary parochial schools	139,549
Elementary independent schools	33,589
Secondary parochial schools	50,056
Secondary independent schools	12,048
Total	235,241

Source: Authors calculation using U.S. Department of Education, National Center for Education Statistics, *Characteristics of Private Schools in the United States: Results from the 2007-08 Private School Universe Survey*, March 2009, Table 15, http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2009313.

Total enrollment in public schools in Texas in 2009-10 was 4,824,778.[8] This was 2 percent more than in 2008-09. Assuming public school enrollment will increase at the same rate for the next two years would mean public school enrollment in 2011-12 would be 5,019,699.

4. Demand and Supply Responses

What impact would the reductions in the tuition price of private schooling estimated in the previous section have on public and private school enrollments in the state? The answer depends on the sensitivity of parents and guardians of school-age children to the changes in prices and the likelihood of producers of private schooling increasing their tuition in response to the program.

A. Demand Response

While a lower price generally leads to larger quantities of a good or service being consumed, the relationship between price and demand varies. In some cases, very large changes in prices are necessary to bring about even small changes in consumption; in other cases, small changes in prices can lead to large changes in consumption.

[7] U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics, 2009*, Table 15, citing Private School Universe Survey, 2007-2008.

[8] Ibid.

For this analysis we created three estimates of the rate at which students would switch from public to private schools due to the tuition savings created by the Taxpayers' Savings Grant Program. The first estimate comes from the peer-reviewed literature on the economics of education. The second and third come from the experiences of Milwaukee, Wisconsin and the Edgewood School District in Texas.

The most comprehensive analysis performed to date of the factors influencing the decision to choose a private school is by Barry R. Chiswick and Stella Koutroumanes (henceforth "C&K") published in 1996 in *Research in Labor Economics*.[9] Parents are motivated by many things other than tuition cost. Reasons to choose a private school might include religious conviction, concern over discipline or violence in public schools, or the convenience of having children attend a school nearby. The choice between public and private school may differ when the child is of elementary-school age and when he or she is of high-school age.

For this analysis we created three estimates of the rate at which students would switch from public to private schools due to the tuition savings created by the TSGP.

Tuition, finally, is not a complete description of the cost of choosing a private school. If choosing a private school increases travel time for students and parents (which is likely given that public schools outnumber private schools by about 8 to 1 nationwide), the complete cost of the decision (time + money) is higher than the price of tuition alone. For all these reasons, the rate at which parents choose private schools may increase more slowly than the decline in tuition, or faster if additional demand increases the number or quality of schools.

Using regression analysis, C&K found many factors to have statistically significant positive effects on the probability of parents choosing private schools,[10] including the following:

- higher family income
- lower cost of tuition
- race (non-black)
- live in New England states
- Catholic ancestry
- higher population density
- higher averaged age of parents, and
- mother does not work outside the home.[11]

---

[9] B.R. Chiswick and S. Koutroumanes, "An Econometric Analysis of the Demand for Private Schooling," Research in Labor Economics, Vol. 15 (1996), pp. 209-237. Since this article was published, Stella Koutroumanes has changed her name to Stella Hofrenning.

[10] Ibid., p. 214.

[11] The authors explain, "Holding income constant, a working mother means lower full family income (less time in home production). Thus, this is consistent with a positive income effect." Ibid., p. 226.

C&K also found several factors did not have a significant effect on the probability of parents choosing private schools:

- student's gender
- average public school test scores
- Hispanic origin

According to C&K, a $1.00 reduction in private school tuition in 1990 (the year of their data) increased the probability of choosing a private school by 0.0021 percent.[12] In other words, in 1990, a $4,000 tuition reduction would increase the probability of private school enrollment by 8.4 percent (4000 x 0.000021=0.084).

Using the Consumer Price Index to adjust for inflation, a dollar in 1990 had a purchasing power of approximately $1.67 in 2011. Therefore, the current value of the C&K coefficient is 0.000021/1.67 = 0.0000125. A $4,000 tuition reduction in 2011 therefore would increase the probability of private school enrollment by 5.0 percent (4000 x 0.0000125).

A $4,000 tuition reduction would increase the probability of private school enrollment by 5.0 percent.

C&K comment on what their research means regarding tuition subsidy plans:

> The analysis indicates that school choice is systematically related to economic and demographic variables. The significant price effects indicate that educational vouchers and tuition tax credits would expand educational opportunities and increase enrollment in private schools, particularly non-parochial or independent schools.[13]

We will use the C&K coefficient to derive our first estimate of the cost savings of the TSGP. Another way to estimate the enrollment effect of the TSGP is to observe the enrollment effects programs similar to TSGP that already exist or recently existed. One such program is the Milwaukee Parental Choice Program (MPCP), which began in 1990 with 341 students using publicly funded scholarships to attend private schools. In the current school year, more than 20,000 students are enrolled. The current scholarship amount is capped at $6,442 and is about 45 percent of per-pupil public spending for Milwaukee Public Schools (MPS).[14]

---

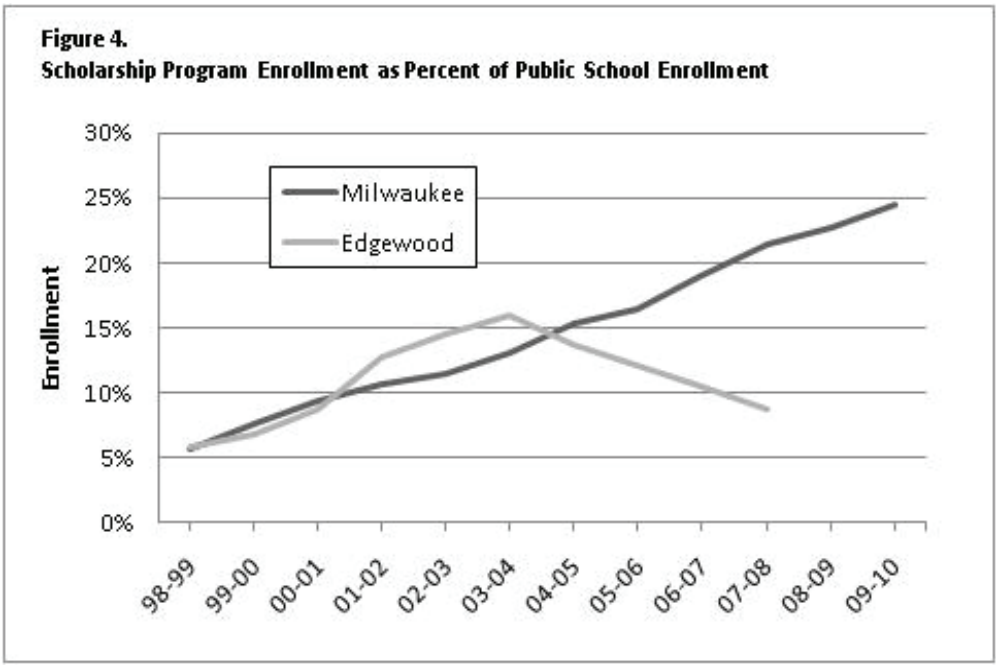
[12] Ibid., p. 229.

[13] Ibid., p. 234. The authors found that demand for independent schools is more responsive to price change than the demand for parochial schools, perhaps because parents who choose parochial schools are willing to sacrifice to obtain religious instruction for their children.

[14] John Robert Warren, "Graduation Rates for Choice and Public School Students in Milwaukee, 2003-2009," School Choice Wisconsin, 2011, in "Sources" to introduction by Susan Mitchell, p. 1, http://www.schoolreform-news.org/article/29370.

Prior to 1998-99, demand for choice scholarships in Milwaukee greatly outstripped the supply, so the rate at which parents chose to switch to private schools isn't a reliable indicator of parental interest. In 1995, religious schools were allowed to enter the program, but court challenges to the program were not resolved until 1998. In the 1998-99 school year, enrollment jumped to 5,740, or approximately 5.75 percent of MPS enrollment. The following year, enrollment was 7,596, approximately 7.62 percent of MPS enrollment. By 2009-10, enrollment was 20,042, about 24.41 percent of MPS enrollment.[15] See the graph in Figure 4.

Figure 4.
Scholarship Program Enrollment as Percent of Public School Enrollment



Note: In 2004-05, new students were no longer accepted into the Edgewood program.

Sources: MPS and MPCP enrollment from Wisconsin Department of Public Instruction, http://dpi.wi.gov/lbstat/mps_enr.html and http://dpi.wi.gov/sms/geninfo.html ("Overall Membership and Payment History"). Edgewood percentages from John Merrifield, et al., "An Evaluation of the CEO Horizon, 1998-2008 Edgewood Tuition Voucher Program," August 31, 2009, Table 1, p. 4, http://www.schoolreform-news.org/article/29359.

The second program is the CEO Horizon Edgewood Tuition Voucher Program (ETV).[16] From 1998 to 2008, that program provided privately funded vouchers to parents and guardians in the Edgewood, Texas school district to allow them to enroll their children in private schools. The tuition grant amount ranged from $2,000 to $4,700 and varied according to grade level and

[15] See sources in Figure 4. Note that state estimates differ from numbers reported by the MPS and other sources, which use different methods that include or exclude charter schools, contract schools, part-time students, etc. We use the latest state statistics for both MPS and MPCP enrollments.

[16] John Merrifield, Nathan Gray, Yong Bao, and Hiran Gunasekara, "An Evaluation of the CEO Horizon, 1998-2008 Edgewood Tuition Voucher Program," August 31, 2009, http://www.schoolreform-news.org/article/29359.

whether the school was inside or outside the Edgewood school district. To stay within the program's $52.4 million budget, the 2004-05 to 2007-08 scholarship funding had to be confined to continuing scholarship users.[17]

In the first year of the ETV program, 770 students received scholarships, a number equal to 5.8 percent of enrollment in Edgewood public schools. In year two, participation rose to 888 students, 6.8 percent of public school enrollment. Participation rose steadily to 15.9 percent in 2003-04, the year before scholarships stopped being offered to new students, and then gradually fell as the program was phased out.[18] The rate of uptake for the program from 1998-99 to 2003-04 appears in Figure 4.

While neither of these programs is exactly the same as the proposed TSGP, it is significant that they prompted similar increases in private school enrollments relative to public school enrollment in their first years (5.75 percent in Wisconsin, 5.8 percent in Edgewood) and second years (7.62 percent in Wisconsin and 6.8 percent in Edgewood). The estimate derived in Part C below using Chiswick and Koutroumanes, of 5.98 percent, is lower but in this same range.

B. Supply Response

If the TSGP leads to investment in new schools and personnel sufficient to provide a place for every child, then there would be little or no increase in tuition.

If the TSGP leads to investment in new schools and personnel sufficient to provide a place for every child, then there would be little or no increase in tuition. If the supply of private schooling does not increase rapidly enough to accommodate the new demand, some private school enrollment growth could be blocked directly (by an insufficient number of seats at private schools) or the rate of growth in private school enrollment could be reduced by higher tuition prices charged by private schools, which would reduce the financial incentive of parents to choose private schools.

There are several reasons to expect that the supply response to the TSGP would be rapid and robust:

- None of the inputs needed for K-12 schooling is especially scarce or specialized. Schools can and do operate in a variety of buildings, including shopping malls and office buildings.[19] Approximately 200,000 new teachers enter the market every year, with a growing portion of

[17] Ibid.

[18] Ibid.

[19] Richard C. Seder, *Satellite Charter Schools: Addressing the School-Facilities Crunch Through Public-Private Partnerships* (Los Angeles, CA: Reason Public Policy Institute, April 1999).

them certified through alternatives to traditional teacher colleges.[20]

- Nearly 60 percent of existing private school enrollment is in parochial elementary schools, which would stand to lose children who are not eligible to participate in the program if they attempted to raise tuition substantially. Any increase that raises tuition to less than the $5,143 level of the TSGP grants would be matched by an increase in the grant, and so would not be passed on to parents.

Experience in other states and in the Edgewood School District in San Antonio demonstrates that private schools can increase their capacity quickly.

- The private K-12 schooling sector constitutes a very small part of an education marketplace that includes public pre-kindergarten and K-12 schools, public and private technical and business training, and public and private higher education.[21] Therefore, even if they were to grow rapidly, private K-12 schools would have little effect on wages or rent.

- The TSGP may not increase the total amount of schooling demanded, but merely reallocate the shares of the public and private sectors.[22] Resources would be released from the public sector in amounts roughly equal to their acquisition by the private sector.

- Introduction of competition and choice in the delivery of other public services has led to more efficient use of resources.[23] If education savings grants bring the same effect to schooling, the same number of children could be taught with fewer resources than are currently used, resulting in less demand and lower prices for those resources.

- Experience in other states and in the Edgewood School District in San Antonio demonstrates that private schools can increase their capacity quickly, certainly in the 15 months that would pass between enactment of the TSGP and the start of the second year. Neither Milwaukee nor Edgewood saw significant increases in tuition following adoption of scholarship programs.

---

[20] C. Emily Feistritzer, *Alternative Teacher Certification: A State-by-State Analysis 2000* (Washington, DC: National Center for Education Information, 2000).

[21] See Chiswick and Koutroumanes, supra note 9, p. 217.

[22] Increased expenditures for educational activities at home may increase the tendency to homeschool, which might reduce the demand for formal schooling, though homeschooling currently has a very small share (2 percent) of the market. But parochial schools have shown a superior ability to keep low-income students from dropping out, which would increase the number of students enrolled in schools by a similarly small amount.

[23] See Charles Wolf, Jr., *Markets or Governments: Choosing between Imperfect Alternatives* (Cambridge, MA: The MIT Press, 1988).

But there are also some reasons to believe the growth in the supply of private elementary and secondary schooling could be less than the increase in demand:

- Many private schools, especially parochial schools, rely on staffs that work for very low wages and have deferred maintenance on their facilities to keep spending low. The TSGP could prompt some school administrators to make long-deserved wage increases and improvements in facilities that would not necessarily increase school capacity.

- Enlarging a successful school may make it less attractive to the most active parents. They may convince school administrators to maintain current enrollment levels and turn away TSGP students in order to preserve the culture of the schools.

- Revenue from the TSGP might simply displace current charitable giving to private schools, resulting in a smaller net increase in investment in, and hence the supply of, private schooling. Private school managers may find it more difficult to raise money from traditional sources if philanthropists come to believe, with some justification, that other needs are now more pressing.

- Most private schools, being nonprofits, lack access to capital markets to finance the acquisition of new or expanded facilities. This has been a frequent problem for charter schools in many states.

- Some of the new investment made possible by TSGP may be used for advertising, for paying or rewarding a new class of subsidy entrepreneurs who start schools and broker deals, or even to build redundant new facilities across the street or just blocks away from underused facilities.[24]

Of the two sides in this debate, we find the case for a large supply response much more compelling. Significant subsidies for K-12 private schooling in Edgewood and Milwaukee quickly yielded private school places for the new private school students. If existing private schools choose not to open their doors to new students, there are many parents, teachers, and entrepreneurs willing to start new schools. Worries about fraud or money spent on advertising are raised every time privatization is proposed, regardless of the field in which it is applied, yet privatized enterprises almost invariably result in higher quality services and lower prices.[25]

Of the two sides in this debate, we find the case for a large supply response much more compelling.

---

[24] See David C. Berliner and Bruce J. Biddle, *The Manufactured Crisis* (New York, NY: Addison-Wesley Publishing Company, 1995), chapter 5; and Paul Hill, Lawrence Pierce, and James Guthrie, *Reinventing Public Education* (Chicago, IL: University of Chicago Press, 1997), chapter 4.

[25] Charles Wolf, Jr., supra note 23; E.S. Savas, *Privatizing the Public Sector* (Chatham, NJ: Chatham House Publishing, Inc., 1982).

For the current study, assuming that the supply of schooling is highly responsive to increased demand means tuition will not rise much, even in the short run when parents could be faced with a limited number of open seats, much less during a time frame that allows a full supply response. However, rather than assume that the sudden increase in demand for private schooling would have no impact at all on tuition prices, we have chosen for the analysis that follows to assume an increase over two years of 4 percent.

Rather than assume that the sudden increase in demand for private schooling would have no impact at all on tuition prices, we have chosen for the analysis that follows to assume an increase over two years of 4 percent.

As previously reported, the national average enrollment-weighted private school tuition level in 2011-12 is approximately $9,030. The estimated average tuition increase caused by rising demand for private schooling is 4 percent of $9,030, which is $361.

We assume that the increase in tuition caused by TSGP would reduce the average per-pupil savings by the same amount, $361, reducing the average savings from $5,143 to $4,782. Note that this is a reduction of 7.0 percent in average savings.

Similarly, while we believe supply will expand quickly, we should not assume there will be sufficient capacity for all students in the very first year of the program. In Edgewood, 86.7 percent of private school enrollment growth in the first two years occurred in the first year.[26] In Milwaukee, that figure is 75.6 percent.[27] We will use these two estimates later in this study to discount the savings to state taxpayers that could come in the first year of the TSGP.

C. Impact on Enrollment

Combining the estimates of price elasticity in Part A of this section with the net price reduction calculated in Part B enables us to calculate the impact of the Taxpayers' Savings Grant Program on private and public school enrollment levels.

The first estimate of the student enrollment rate of the TSGP can be derived by multiplying the C&K coefficient by the average tuition price reduction:

$4,782 x 0.0000125 = 0.0598, or about 6 percent.

The total population of K-12 students in Texas in 2011-12 is expected to be 5,254,940. (5,019,699 students attending public schools and 235,241 students attending private schools without education savings grants.) The number of additional private school students in 2011-12

[26] 770 of the 888 year-two Edgewood scholarships were used in year one. 770/888 = 0.867.

[27] 5,740 of the 7,596 Milwaukee scholarships in 1999-2000 were issued in 1998-1999. 5740/7596 = 0.756.

would be 6 percent of this total population:[28]

0.0598 x 5,254,940 = **314,245 participating students**

The Edgewood experience suggests a slightly higher rate of enrollment. In the second year of the ETV program, the number of students using scholarships to enroll in private schools, 888, was 6.8 percent of the number of students enrolled in the Edgewood public schools. If the TSGP had the same pick-up rate as the Edgewood program in its second year, the number of students participating would be:

0.0680 x 5,019,699 = **341,340 participating students**

The Milwaukee experience suggests an even higher rate of enrollment. In the second year of the program, 7,596 students used scholarships to enroll in private schools, being 7.62 percent of Milwaukee Public Schools enrollment that year of 99,729. If the TSGP had the same pick-up rate as the Milwaukee program in its second year, the number of students participating would be:

0.0762 x 5,019,699 = **382,501 participating students**

Since students who were not enrolled in the program in the previous year would not be eligible to participate in the TSGP, all of these students would come from current enrollment in Texas public schools.

To summarize, between 314,245 and 382,501 students would be using the TSGP to enroll in private schools during the second year of the program. This represents an increase in private school enrollment of between 133 percent and 163 percent. Between 6.3 percent and 7.6 percent of students now in public schools would transfer to private schools.

To summarize, between 314,245 and 382,501 students would be using the TSGP to enroll in private schools during the second year of the program.

5. Impact on State Taxpayers

The impact on state taxpayers can be calculated by subtracting the grants given out under the TSGP from what the state otherwise would have spent on students who participate in the program. This calculation is easier than what appears in estimates of the net costs of some other types of choice programs because the state's Foundation School Program automatically calculates the state's financial obligation for each student.

[28] Given the way C&K derive their coefficient, our calculation must include the number of students already in private schools, whereas the percentages for the Edgewood and Milwaukee programs are measured as a percentage of students attending public schools.

The effect on a school district of a student transferring to a private school would be identical to the effect of a student transferring out of the school district. The effect on the state treasury would be a savings equal to the difference between the cost of the education savings grants and the amount that would have been spent had the students remained in the public schools.

> The impact on state taxpayers can be calculated by subtracting the grants given out under the TSGP from what the state otherwise would have spent on students who participate in the program.

The TSGP says the grant shall be "in the amount of actual tuition or sixty percent of the state average per-pupil maintenance and operations expenditure, whichever is less." Approximately two-thirds of all school-age children in Texas attend elementary schools, and approximately two-thirds of students attending private elementary schools attend religiously affiliated schools where tuition averages about $3,983, or 22 percent less than our estimate of 60 percent of state maintenance and operations spending. By assuming that every student qualifies for the larger grant of $5,143, we ensure that our savings estimates are as conservative as possible.

A. Three Estimates of State Savings

Assuming every student who participates in the program receives the maximum savings grant, the annual state savings per student who participates in the TSGP is:

Annual Savings per Student: $8,572 - $5,143 = $3,429

The C&K-based estimate of private school enrollment growth (6 percent) can be conservatively expected to occur over the course of two years. The Edgewood experience leads us to predict that 86.7 percent of the enrollment shift will occur in the first year and 100 percent in the second year. The combined two-year savings to state taxpayers, then, would be approximately $2.0 billion:

Savings in Year One: 314,245 x $3,429 x 0.867 = $934.2 million

Savings in Year Two: 314,245 x $3,429 = $1.08 billion

Combined Two-year Savings: **$934.2 million + $1.08 billion = $2.01 billion**

Using the Edgewood rate of enrollment growth, the savings to state taxpayers over two years would be approximately $2.2 billion:

Savings in Year One: 341,340 x $3,429 x 0.867 = $1.01 billion

Savings in Year Two: 341,841 x $3,429 = $1.17 billion

Combined Two-year Savings: **$1.01 billion + $1.17 billion = $2.18 billion**

Using the Milwaukee rate of enrollment growth, the savings to state taxpayers over two years would be approximately $2.3 billion:

Savings in Year One: 382,501 x $3,429 x 0.756 = $991.6 million

Savings in Year Two: 382,501 x $3,429 = $1.31 billion

Combined Two-year Savings: **$991.6 million + $1.31 billion = $2.30 billion**

To summarize, the combined two-year savings for state taxpayers would be at least $2.0 billion.

B. Possible Effect of Strategic Behavior by Parents

To summarize, the combined two-year savings for state taxpayers would be at least $2.0 billion.

The proposed program would limit participation to parents and guardians whose children "attended a public school in whole or in part in the previous academic year." This means children who are already enrolled in private schools would not be eligible to participate. However, if their parents take them out of private school for one year, they would become eligible for tuition assistance for the rest of their education careers. How many parents are likely to engage in such strategic behavior?

We can estimate the maximum number of parents likely to do this by looking at the estimated enrollment rate of the TSGP from the opposite end of the scope, as it were. In our analysis, we estimated that the savings grants offered by the TSGP would prompt parents to move between 6.3 percent and 7.6 percent of students from public schools to private schools. This means the balance of public school parents – between 92.4 percent and 95.7 percent – don't view the cost of tuition as a deciding obstacle to choosing private schools for their children, at least not in the early years of the program. Among parents who have children in private schools, the percentage who believe cost is not an obstacle must be even higher, since they have already chosen private schools despite the cost of tuition.

This means the TSGP would prompt, *at most,* the same percentage of parents with children already in private schools to move them to public schools, as the percentage of parents with children in public schools to move them to private schools. We think it is likely to be considerably less, but this estimate at least provides a maximum estimate. Figure 5 calculates the effect on TSGP state taxpayer savings if migration from private schools occurred at the same rate as we forecast migration to occur from public schools.

According to Figure 5, parents moving their children from private to public schools in order to qualify for savings grants in future years are likely to reduce biannual savings by no more than 10 percent. Over time, it is possible that more parents would act strategically to qualify their children for savings grants, but we would expect this rate of increase to be no more than the increased likelihood of parents whose children currently attend public schools participating in the TSGP. The savings to the state due to public-to-private migration grow much faster than the costs due to private-to-public strategic behavior, ensuring that savings in later years would exceed $2 billion per biennium.[29]

Figure 5.
Cost of Students Moving from Private to Public Schools: Using Same Rates as Public-to-Private School Migration

% of private school children moving to public schools in second year	**6.3%**	**6.8%**	**7.6%**
# of students in first year	12,597	13,597	15,197
# of students in second year	14,820	15,996	17,878
Public school cost in first year	$107,982,817	$116,552,882	$130,264,986
Public school cost in second year	$76,220,201	$82,269,423	$91,948,179
Net savings in first year	$826,217,183	$903,947,118	$861,335,014
Net savings in second year	$1,003,779,799	$1,087,730,577	$1,218,051,821
Biannual net savings/cost	$1,829,996,981	$1,991,677,694	$2,079,386,835

Notes: Savings in first and second year for each of the three scenarios are the estimates on pages 16-17 minus the public school cost figures. Students who migrate in the first year become eligible for savings grants in the second year, so in the second year they impose only the cost of the grant, $5,143.

C. A Conservative Estimate

Over the course of this analysis, the authors have made several assumptions and methodological choices to ensure that the estimate of savings is conservative. Here is a brief summary of those assumptions and choices:

- The analysis uses a national estimate of average private school tuition that is higher than actual tuition in Texas. Tuition at Catholic schools in Texas is approximately 20 percent less than the national average for parochial schools. This could mean the average value of a savings grant could be less than the maximum TSGP grant of $5,143.

[29] Spreadsheet is available from the authors.

- The analysis assumes that every student qualifies for the maximum value of the education savings grant, even though many will not. In particular, students attending religious parochial schools are likely to pay tuition of about $4,000, more than $1,000 less than the maximum savings grant amount of $5,143.

- The analysis assumes that increased demand will result in private school tuition prices rising by 4 percent above the expected rate of inflation, and that this increase would reduce enrollment by reducing the average tuition reduction by $361, or 7 percent. In fact, very few parents would be affected by such an increase in tuition since most schools charge tuition less than the value of the maximum savings grant, so our assumption implies a larger reduction in per-pupil savings than is likely to be the case.

- The analysis uses enrollment rates from other programs that are or were more restrictive or less generous than the TSGP would be. The Milwaukee program offers grants that are worth only 45 percent as much as public school per-pupil spending, does not allow schools to charge more than the amount of the grant, and is open only to low-income families who reside in a single city. The Edgewood program offered grants that ranged from only $2,000 to $4,700 and participation was limited to residents of that largely low-income community. We believe a universal option-demand program[30] such as the TSGP would see a higher enrollment rate, though perhaps not in the first two years of the program.

For all these reasons, we believe our estimate of approximately $2 billion in state savings during the first two years of the TSGP is very conservative.

- The analysis uses the state's estimates of per-pupil maintenance and operations spending as a proxy for the cost to state taxpayers of each student enrolled in the public schools, and therefore of the savings whenever a student leaves the system. In fact, total per-pupil spending is much higher than this, but it may not be possible to estimate how much of the additional expense is paid by the state rather than local governments. In some situations it could be considerable, and in such cases this methodology underestimates savings.

- The analysis finds that up to 7.6 percent of parents with children already in private schools will, in the second year of the program, withdraw them from schools they apparently like and are willing to voluntarily support with tuition payments, and enroll them in public schools they apparently do not like, in order to avoid having to pay tuition in future years. We don't know what a more reasonable estimate of this strategic behavior might be, but we suspect this is too high. A lower rate would mean more savings for taxpayers.

For all these reasons, we believe our estimate of approximately $2 billion in state savings during the first two years of the TSGP is very conservative.

---

[30]John D. Merrifield, "The Twelve Policy Approaches to Increased School Choice," *Journal of School Choice*, Vol. 2 No. 1 (2008), pp. 4-19.

6. Conclusion

This report examined a proposal to give Texans the opportunity to help address their state's budget crisis by electing to move their children from public to private schools and accepting education savings grants equal to private school tuition or 60 percent of average public per-pupil maintenance and operations spending, whichever is less.

This analysis confirms the apparent goal of the drafters of the bill, to save Texas taxpayers billions of dollars by allowing parents to choose private schools for their children.

We found that the proposed TSGP would save state taxpayers approximately $2.0 billion over two years. At several steps in our analysis, we made assumptions and methodological choices that would reduce our eventual estimate of savings. With different assumptions and choices, the savings forecast would have been considerably greater.

This analysis confirms the apparent goal of the drafters of the bill, to save Texas taxpayers billions of dollars by allowing parents to choose private schools for their children if they are willing to have the state spend less on their children's education.

# # #

About the Authors

John Merrifield, Ph.D. is a professor of economics at the University of Texas at San Antonio, a position he has held since 1987. He is the author of four books, including *The School Choice Wars, School Choices,* and *Parental Choice as an Education Reform Catalyst: Global Lessons.* Dr. Merrifield is editor of the *Journal of School Choice* and director of the E.G. West Institute for Effective Schooling. For more information about WIES, please visit www.egwest.org.

Dr. Merrifield has written 45 articles published in peer-reviewed journals and several book chapters in his primary teaching and research fields of education economics, urban and regional economics, environmental and natural resource economics, and public finance. He received a B.S. in natural resource management from Cal Poly San Luis Obispo in 1977, an M.A. in economic geography from the University of Illinois in 1979, and a Ph.D. in economics from the University of Wyoming in 1984.

Joseph Bast is president of The Heartland Institute, a national nonprofit research organization with offices in Chicago and Washington DC. He is coauthor or editor of 14 books, including *We Can Rescue Our Children* (1988), *Rebuilding America's Schools* (1990), *Education & Capitalism* (2003), and *Let's Put Parents Back in Charge* (2005). His writing has appeared in *Phi Delta Kappan, Economics of Education Review, The Wall Street Journal, Investor's Business Daily, Cato Journal, USA Today,* and many of the country's largest-circulation newspapers. He is publisher of *School Reform News*.

Bast has been recognized many times for his contributions to public policy research and debate, including being named one of "The 88 to Watch in 1988" by the *Chicago Tribune*, a Kentucky Colonel by Gov. Paul E. Patton in 1996, a member of the Philadelphia Society in 2002, and member of the board of directors of the American Conservative Union in 2007. He received the 1994 Roe Award from the State Policy Network and the 1996 Sir Antony Fisher International Memorial Award (with coauthors).

About The Heartland Institute

The Heartland Institute is a national nonprofit research and education organization. Founded in Chicago, Illinois in 1984, Heartland's mission is to discover, develop, and promote free-market solutions to social and economic problems. Its activities are tax-exempt under Section 501(c)(3) of the Internal Revenue Code.

The Heartland Institute contacts more elected officials, more often, than any other think tank in the United States. According to a telephone survey of 500 randomly selected state and local officials conducted by Victory Enterprises in 2009, 85 percent of state legislators and 63 percent of local officials say they read and rely on Heartland publications.

Heartland has offices in Chicago, Illinois and Washington, DC, a full-time staff of 35, and a 2011 budget of $7 million. It is supported by the voluntary contributions of approximately 1,800 supporters. For more information, please visit our Web site at www.heartland.org, call 312/377-4000, or write to The Heartland Institute, 19 South LaSalle Street #903, Chicago, Illinois 60603.

About the E.G. West Institute for Effective Schooling

The E.G. West Institute for Effective Schooling (WIES – pronounced 'wise') is an objective, nonpartisan policy research institute devoted to the creation and dissemination of new knowledge about how to design and build high-performing K-12 education systems.

WIES was cofounded by Dr. John Merrifield, professor of economics at the University of Texas at San Antonio, and Dr. Nathan Gray, assistant professor of business and public policy at Young Harris College in Young Harris, Georgia. They created WIES to fill a need for high-quality, objective research aimed at empowering transformational leadership with answers to critical questions, including many not on the research agendas of other organizations on the front lines of efforts to reform K-12 education.

A major program of WIES is publication of the *Journal of School Choice,* an academic, peer-reviewed, international journal edited by Dr. Merrifield. The journal rigorously applies scientific principles to school system reform, including the many policy approaches to school choice. Taylor and Francis, an international publisher, The University of Texas at San Antonio's College of Business, and WIES jointly support the journal's operations.

For more information, visit our Web site at www.egwest.org, call 210/737-2992, ext. 22, or write to E.G. West Institute for Effective Schooling (WIES), 1800 San Pedro Avenue, San Antonio, TX 78212.