

Money Still Matters! For Our Children and For the Future of Texas



Equity Center Executive Committee

Dr. Paul Clore, Gregory-Portland ISD, President Dr. Russ Perry, Agua Dulce ISD, First Vice President Charles Dupre, Pflugerville ISD, Vice President - Programs Dr. Marcelo Cavazos, Arlington ISD, Vice President - Membership Gonzalo Salazar, Los Fresnos ISD, Vice President - Finance Dr. Randy Reid, Keller ISD, Secretary-Treasurer Dr. Berhl Robertson, Lubbock ISD, Past President Rod Schroder, Amarillo ISD, Legislative Advisor

Equity Center Contributors

Dr. Wayne Pierce, Executive Director Dr. Ray Freeman, Deputy Executive Director Tedrah Hutchins Robertson, Director of Communications Dr. Charles Aki, Director of Research Tim Wolff, Programmer & Analyst

Prepared by

Bonnie A. Lesley

Dr. Lesley was a classroom teacher for 17 years and a curriculum director in Ysleta ISD for seven years. She served as Assistant Superintendent for Curriculum in Waco ISD, Austin ISD, Kansas City, Kansas SD, and Little Rock SD and as Associate State Superintendent for Curriculum in the State of Delaware. She has also served as adjunct faculty at five universities: University of Texas at El Paso, Baylor University, University of Arkansas at Little Rock, Tarleton State University, and Texas A&M—Central Texas. After 41 years in public education, she served as president of a private business for seven years. She earned her undergraduate degree at the University of North Texas, administrator certification at the University of Texas at El Paso, master's at West Texas A&M, and doctorate at Baylor University. She authored the 2010 publication, Money Does Matter! Investing in Texas Children and Our Future, commissioned by the Equity Center.

© 2013 Equity Center, 1220 Colorado Street, Suite 300, Austin, Texas 78701

The Equity Center was founded in 1982 by 55 school districts and now represents almost 700 of the state's 1,024 districts. It is the only education organization in Texas that exclusively represents the interests of children in school districts that are habitually underfunded by the Texas school finance system. Fair treatment of Texas children and taxpayers is the principal goal of the Equity Center.

Foreword

First, we at the Equity Center would like to express our profound thanks to Dr. Bonnie Lesley for her excellent research, compilation of facts, and information. She has organized Money Still Matters! in a manner that makes it informative, logical, and very readable and we feel certain you will find her style and writing enjoyable and thought provoking.

We hope that as you read Money Still Matters! it provokes your thoughts, brings you to conclusions about the importance of public education in a democratic society and brings focus to the many challenges that face Texans in our attempts to provide the educational opportunities each child of Texas deserves and needs to be both a good and contributing citizen of the state and competitive in the world wide economy and skills search they will face in this 21st century.

Dr. Lesley quotes Dr. Martin Luther King in her concluding remarks and it is completely appropriate to do so in her summary. But his remarks were so timely when made and remain so today, we felt them to be apropos for our readers in the beginning as well.

"On some positions, Cowardice asks the question, "Is it safe?" Expediency asks the question, "Is it politic?" And vanity comes along and asks the questions, "Is it popular?" But Conscience asks the question, "Is it right?" And there comes a time when one must take a position that is neither safe, nor politic, nor popular, but he must do it because Conscience tells him it is right."

- Dr. Martin Luther King



Money Still Matters!

For Our Children and For the Future of Texas

Table of Contents

Introduction	2
Texas Children & Their Schools	5
Why Money Still Matters	21
Quality Teachers Matter	35
Small Class Size Matters	50
Preschool Matters	54
Interventions for Struggling Students Matter	63
High Expectations and Challenging Curriculum Matter	82
Yes, Money Still Matters	102

Introduction

More than two years ago, in 2010, the Texas Equity Center, a consortium of almost 700 propertypoor school districts, published and widely distributed a report entitled Money Does Matter: Investing in Texas Children and Our Future.¹ We provided a research-based synthesis of what is important in education spending to improve student learning. We also pointed out the inadequate and inequitable resources in the vast majority of Texas schools, all of which matter if we truly want better academic outcomes.

The children can't wait, we advised. We cited the words of the poet Gabriela Mistral: "... our worst crime is abandoning the children,/ neglecting the fountain of life./ Many of the things we need can wait./ The child cannot./ Right now is the time his bones are being formed,/ his blood is being made, and/ his senses are being developed./ To him we cannot answer 'Tomorrow.'/ His name is 'Today.'² In closing, we called for the Great State of Texas to invest in our children and in the future by creating an improved funding system.

Instead of heeding our advice and the advice of many, many others, state leaders made draconian cuts of \$5.4 billion to the education budget over the 2011-2013 biennium, refusing to dedicate the "rainy day fund" to preserve even the previous funding levels, which were already inequitable and inadequate.³ Former Lt. Gov. Bill Ratliff points out that when we look at how public education has been under-funded since 2009, the deficit amount is, at minimum, a staggering \$11.8 billion⁴. In addition to inequitable allocations, leaders have ignored the costs of the tens of thousands of new students each year in Texas; the costs of inflation; terribly out-of-date funding formulas, including student weight formulas; un-funded or inadequately funded mandates;⁵ and the accelerating increase in the percentage of children living in poverty.

We now know that the impact in 2011-2012 was an average of almost \$600 fewer dollars per Texas child.⁶ Dr. Wayne Pierce, executive director of the Equity Center, testified, however, in the school finance hearing that "property-wealthy school districts spend about \$65,000 more per classroom than poor districts."⁷ The effects of the austerity education budget were felt most by those

already funded significantly below wealthier districts. Educators, parents, school board members, and other supportive citizens across the state are still reeling from the shock of it all. As of publication, almost 60 percent of the state's school districts, serving 75 percent of Texas students,⁸ are involved in litigation with aims to improve both the adequacy and equity of funding.

This report begins with a discussion of poverty and economic disadvantage: the poverty in which a large majority of Texas children live and the poverty of most school districts due to unacceptably inadequate and inequitable funding allocations.

The next section is a discussion about why money matters in the achievement of state education goals, especially in the context of higher and higher expectations for improved academic performance by federal, state, and local policymakers.

There is a consensus among leading researchers around the nation that money itself is not a solution, but, rather, how it is spent. We will, therefore, focus in the next sections on five research-based areas that are the most important in improving student learning and are, therefore, the areas where money matters the most, especially, but not exclusively, for the children who are economically disadvantaged: (1) quality teachers, (2) small class size, (3) early childhood education, (4) interventions for struggling learners, and (5) challenging expectations and curriculum.

The recent decisions of state-level policymakers resulted in cuts in precisely these five critically important areas. As a result, the major problem for Texas is not an achievement gap per se. That is merely a symptom. What we have is an opportunity-to-learn gap.

It is time to remember the words from Brown v. Board of Education:

Today, education is perhaps the most important function of state and local governments. Compulsory school attendance laws and the great expenditures for education both demonstrate our recognition of the importance of education to our democratic society. It is required in "In these days, it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education. Such an opportunity, where the state has undertaken to provide it, is a right which must be made available to all on equal terms."

--Brown v. Board of Education, 1954

performance of our most basic public responsibilities, even service in the armed forces. It is the very foundation of good citizenship... In these days, it is doubtful that any child may reasonably be expected to succeed in life if he is denied the opportunity of an education. Such an opportunity, where the state has undertaken to provide it, is a right, which must be made available to all on equal terms.⁹

We must adequately and equitably fund our schools and provide all necessary opportunities to learn—because we have the responsibility to do so. We must also attend to research findings that guide good educational practice, and we must stop doing what people believe, rather than what scientific evidence proves is true. These are the right things to do on behalf of our children and for the future of Texas. Money still matters. It matters greatly.

ENDNOTES

- 1. Lesley, B. A. (2010). Money does matter: Investing in Texas children and our future. Austin, TX: Equity Center. Retrieved June 2, 2012, from http://www.equitycenter. org.
- Gabriela Mistral, born in 1889 in Chile, was the first Latin American to win the Nobel Prize for Literature. She taught in several American universities in the 1930's. She died in 1957.
- 3. Stutz, T. (2012, May 28). Texas schools short by 15,000 teachers this year, analysis shows. Dallas Morning News. Retrieved June 2, 2012, from http://www. dallasnews.com/news/education/headlines/20120528. Stutz reports that the budget cuts for the biennium amount to \$5.4 billion (\$4 billion in the foundation program and an additional \$1.4 billion for dropout prevention and early childhood expansion programs). Texas schools lost more than 15,000 teachers, including those laid off, positions vacant due to attrition and not filled, and positions that would have been added for additional new students. State figures also show that more than 25,000 jobs were eliminated in 2011-12, including those of teachers, administrators, and support workers. He also reports that in 1,729 schools, more than 8,600 classrooms exceed state limits in class size. Stutz's data source was the Texas Education Agency.
- 4. Ratliff, B. (2012, Feb. 7). The state budget—a Texas tragedy. Unpublished manuscript. Gov. Ratliff summarized the content in a speech delivered on Nov. 15, 2012, to the Greater Waco Education Alliance Summit in Waco, TX. <u>http://www.educatewaco.com/downloads/Lt. Governor Ratliff Letter, rev.pdf</u>.
- 5. See, for example, Imazeki, J. & Reschovsky, A. (2004, October). Does No Child Left Behind place a fiscal burden on states? Evidence from Texas. Retrieved August 6, 2012, from http://minds.wisconsin.edu/handle/1793/36368. Texas Association of School Administrators & Texas Association of School Boards (November 2008). Report on school district mandates: Cost drivers in public education. Retrieved July 19, 2010, from <a href="http://www.tasb.org/legislative/legislativ
- 6. Truth-O-Meter (2012, March 24). State Rep. Donna Howard says Texas spending \$500 less per student on average. PolitiFact Texas. Retrieved June 25, 2012, from http://www.politifact.com/texas/statements/2012/apr/26/donna-howard/state-rep-donna-howard-says-texas-spending-about-5/
- 7. Scharrer, G. (2012, Nov. 2). Equity Center: Some schools get \$65,000 more per classroom. San Antonio Express. <u>http://www.mysanantonio.com/new/education/</u> article/Equity-Center-Some-schools-get-65-000-more-per-4001543.php.
- 8. The Texas Taxpayer and Student Fairness Coalition represents 40 percent (416) of the state's 1,024 public school districts. Almost 60 percent (588) of all districts are involved in the litigation through one of the four plaintiff groups representing school districts. One suit has also been filed by charter schools. See http://www.equitycenter.org/.
- 9. Brown v. Board of Education, 347 U.S. 483 (1954).

Texas Children & Their Schools

According to the Texas Education Agency (TEA), there were 4,912,385 children enrolled in Texas public schools in 2010-2011—almost five million!¹ Texas enrollment is approximately 10 percent of the national enrollment of 49.5 million students,² and Texas ranks second to California among the states in numbers of school children. The academic performance of these large numbers of Texas children is, therefore, critically important not only to Texas, but also to the whole country.

The quality of the children's education now will determine in large part whether they complete high school and some form of post-secondary education, whether they give birth as teens, whether they commit felonies and go to prison, whether they are healthy, whether they are participatory citizens, whether they lead economically disadvantaged lives, the stability of their homes and families, the quality of their parenting, whether they resort to drug/alcohol abuse, whether they qualify for jobs beyond those that pay minimum wage, whether they volunteer or donate money to the greater community, and whether they contribute to the common good by paying taxes.

In other words, Texas can provide a quality education for its children today to ensure that they have a prosperous future—or we can continue to pay the costs of tens of billions of dollars annually for our negligence. "Texas can provide a quality education for its children today to ensure that they have a prosperous future or we can continue to pay the costs of tens of billions of dollars annually for our negligence.

Two Texas Challenges

There are two major challenges for Texas in providing world-class schools. The first is the extraordinarily high rate of economic disadvantage among our children, which affects their cognitive development, their health, their stress levels, and their behavior.³ New research blending neuroscience, cognitive psychology, and education⁴ is already doing a great deal to inform practice and to provide teachers with the tools they need to help children overcome the debilitating influences of economic disadvantage. But, financial resources are required to make this new information accessible to all educators and to fully fund and implement the necessary components of a high-performing school.

Struggling learners are, most frequently, the children who are economically disadvantaged, but they include those not yet proficient in English and those with learning disabilities. These are the children, by and large, who are not scoring at the proficient level on state assessments, and these are the children most likely to drop out of school. Their low performance is also the reason that many Texas schools fail to meet the standards for an "Acceptable" rating or above in the state's accreditation system.

The second major challenge is the poverty or low-funding levels of most of our schools, their inability because of lack of money, to provide appropriate opportunities to learn for those who struggle. The poverty of schools is the result of a heavy reliance on property taxes as a source of revenue to fund education, along with the current inadequate and inequitable funding system for both students and taxpayers that has plagued Texas schools for decades and has been the subject of litigation since the 1960's.⁵

Instead of addressing the issues of children's economic disadvantages and the inadequate and inequitable schools they attend, the Texas legislature, usually with the support of the governor, has mandated one school reform initiative after another since the 1970's. The emphasis has been on more "rigorous" curriculum standards, more "rigorous" assessments, and more "rigorous" accountability for schools, educators, and students. These major initiatives have been approved, however, without enough attention to their lack of a sound research base, their appropriateness, or costs of implementation.⁶ They have also been mandated without endorsements from teachers, other experts in teaching and learning, and parents. After more than 30 years of their implementation in Texas schools and their failure evidenced by ample research,⁷ it is past time for state leaders to admit their errors and to allow the strong voices of educators and parents to prevail. An example of the resistance to failing policies is that 818 school districts (and growing)

have now endorsed, at the urging of parents and educators, a resolution in protest of "overreliance on standardized, high-stakes testing."⁸

In summary, our major challenge is how to transform our schools so that we deliver a quality, world-class education to our millions of students, and we must both improve their performance and stem the unacceptably high dropout rate. Otherwise, poverty continues to grow. We must, therefore, solve the problems relating to the funding of our public schools. The current Texas school funding system is a major barrier to academic success for students and to fairness for taxpayers.

Poverty Among Texas Children

Poverty is measured in several different ways in the United States. If we use the federal definition of poverty, then the percent of Texas children living in poverty has increased from 21 percent in 2000 to 26 percent in 2010. To be considered poor, the income for a family of four cannot exceed \$22,314 annually. One in four Texas children, therefore, is at "high risk for cognitive, emotional, educational, and health problems that last through adulthood," states the Center for Public Policy Priorities (CPPP) (2010).⁹

Using the federal definition of poverty, Texas has the fifth highest poverty rate among children in the United States and, therefore, the fifth highest rate of child food insecurity in the country, states Jeremy Everett (2012), the director of Baylor University's Texas Hunger Initiative, which means these children "do not know where their next meal will come from."¹⁰

The high percentage of child poverty also has economic ramifications. Pollard (May 2008) reported on a study conducted by the Population Reference Bureau on state costs of growing up poor in the United States. The study, using 2006 data, found that the Texas cost was \$57.5 billion dollars annually.¹¹ In 2012 the annual cost of negligence is likely \$60 billion per year. Good education is not nearly as expensive as poor education.

Schools typically use the percentage of children eligible for free/reduced-price meals, not the federal definition, as a measurement of economic disadvantage, so this is the definition that we will use throughout this report. To qualify for free/reduced-priced meals, the family income cannot exceed 185 percent of the federal definition of poverty (\$41,128 annually for a family of 4). An astounding 60 percent of the total enrollment in 2010-2011 were eligible for this program.¹²

The rapid growth in percentages of students who are economically disadvantaged is a concern of all educators, given what is known about how poverty predicts (but does not necessarily determine)academic performance. Figure 1 provides data on the increasing rates of economically disadvantaged students from 1994-1995 to 2009-2010 in Texas. The rate grew to more than 60 percent in 2010-11.

In the past 15 years, Texas percentages of children who are economically disadvantaged have increased from 46 percent to 59 percent—13 percentage points—and growing.

A major reason for the low-income homes in which the majority of Texas children live is the low wages paid their parents. According to CPPP (2012), Texas is tied with Mississippi for the highest rate of minimum-wage hourly workers in the United States.¹³ Therefore, Texas has the largest number of people working at the minimum-wage level of any state.¹⁴ The Texas minimum wage is \$7.25/hour.¹⁵ If a person works 40 hours per week, his/her salary will be \$290/week or \$13,920/year. If only one parent is working, the household income falls well below the federal definition of poverty (\$22,314 for a family of four). Many minimum-wage earners hold down more than one job, but even at that they are still a part of the growing legions of the "working poor."

Edelman (2012), citing Census Bureau data, explains that there are four major reasons why we have not ended poverty in America. The first reason is that "An astonishing number of people



FIGURE 1:

Percentage of Economically Disadvantaged Students

1994-95, 1999-2000, 2004-2005, and 2009-2010

Data Source: Texas Education Agency, Snapshots

work at low-wage jobs." He continues: "The first thing needed if we're to get people out of poverty is more jobs that pay decent wages."¹⁶ Huge percentages of people who need better paying jobs live in Texas.

Another reason for child poverty is the education level of their parents. Texas ranks dead last among the states and the District of Columbia in the percentage of adults with high school diplomas. In Texas 80 percent of adults have high school diplomas, as compared to the national average of 85 percent.¹⁷ Our state must value and invest in education for adults, as well as children.

There are, of course, other reasons for child poverty, but these two are major ones and reflective of policy decisions. They undermine, along with inequitable and inadequate school funding, children's opportunities for social mobility, a major component of the American dream.

Concentrations of Poverty

Children who are economically disadvantaged in a Texas school district are highly likely to be in a district where there are very high concentrations of economic disadvantage. The state's smallest and largest districts have the highest poverty rates. Two other categories of districts with high concentrations of poverty include those in counties along the Mexican border and schools in 27 of our largest school districts, all serving at least 25,000 students each.

With a child poverty rate (federal definition) of 26 percent, Texas has the fifth highest child poverty rate among the states. Three of the states that have higher rates are on our borders: Louisiana (27 percent), Arkansas (28 percent), and New Mexico (30 percent).¹⁸ So, as a state, we and our closest neighbors (plus Mississippi at 33 percent) have a concentration of child poverty that is the highest in the nation.

Where Texas ranks nationally is only part of a very dismal story. UNICEF (May 2012) recently issued a report on child poverty among the world's richest nations, and it found that the United States has the second highest child poverty rate, just below Romania.¹⁹

"A major reason for the lowincome homes in which the majority of Texas children live is the low wages paid their parents. According to CPPP (2012), Texas is tied with Mississippi for the highest rate of minimumwage hourly workers in the United States." "We believe these stark facts signal a real danger that needs to be addressed in many ways, but not least by seriously rethinking and reinvesting in our educational system to make the conception of a democratic society to which all contribute and from which all benefit more a reality and less an empty ideal." Therefore, millions of Texas children attend schools with very high concentrations of economically disadvantaged, if not poor children, in a state with one of the highest child poverty rates in the nation, in the region of the United States where poverty is most concentrated, and in a country with the second highest child poverty rates of all developed countries. A highly acclaimed recent publication, Whither Opportunity? Rising Inequality, Schools, and Children's Life Chances (2011), challenges all Americans to consider the implications of how inequality influences education and the imperative to rethink and reinvest in education:

Americans have long been willing to accept a certain measure of material inequality as inevitable and even as fair in a political and economic system that sustains and encourages free enterprise. But Americans also believe in the democratic ideal of equal opportunity—that everyone should have an equal chance to get ahead in life, and that ability and hard work should be rewarded without regard to the accidents of birth. Education has long been seen as an essential foundation for those opportunities. Educating disadvantaged students not only adds to their opportunities but to the development of a prosperous and healthy democratic society from which all benefit. Over much of our nation's history, expanding educational opportunity has been, in fact and in perception, a key element in the "rising tide that lifts all boats." At the deepest level, the disturbing question . . . is whether, after thirty years of steadily rising economic inequality in the United States, that tide is now running out, and our educational system may be doing more to perpetuate and even to increase inequality than to expand educational opportunity. It bears remembering that test score differences between the children of the rich and poor are now much greater than they were thirty years ago and so are the differences in college attendance and graduation. We believe these stark facts signal a real danger that needs to be addressed in many ways, but not least by seriously rethinking and reinvesting in our educational system to make the conception of a democratic society to which all contribute and from which all benefit more a reality and less an empty ideal.20

Rethinking. Reinvesting. Those we must do if we love democracy.

Children in Inadequately and Inequitably Funded School Districts

As we have seen, a large majority of Texas school children (60 percent) come from homes that are economically disadvantaged, and more than one-fourth of Texas children live in dire poverty (according to the federal definition). Overcoming the disadvantages that come with few monetary resources in children's homes is difficult enough. The children are also highly likely to be enrolled in schools that are inadequately and inequitably funded in comparison to other Texas schools, and almost all Texas schools fall below national averages of per-student expenditures.

Stark inequity is clear. Figure 2 displays the taxpayer and student inequities between two relatively small districts of similar size. Lorena ISD, with revenue per WADA that is below the state average, receives significantly less money than Glen Rose ISD to educate its students. (WADA is the weighted average daily attendance metric that is used in the funding allocation formula. Student weights are based on the educational needs of students. The original intent was that districts with higher percentages of students requiring compensatory education, special education, English-as-a-second language programs, and so forth, would receive additional funding in recognition of the additional cost required to provide adequate and equitable educational opportunities for those children.²¹)

Figure 2: Glen Rose ISD and Lorena ISD Approximately 2,000 WADA

District	Tax Rate	Revenue/WADA	Allocation
Glen Rose ISD	\$0.8250	\$8,893	\$17,786,000
Lorena ISD	\$1.1700	\$5,691	\$11,382,000
Gaps	\$0.3450	\$3,202	\$6,404,000

Data source: Texas Education Agency, 2010-2011, via the Equity Center

Because Glen Rose ISD has so much property wealth, their adopted tax rate is only \$0.8250. Lorena ISD, which has made a commitment to raise as much money as possible for the children in their schools, has an adopted M&O (maintenance and operations) tax rate of \$1.17-- the maximum allowed by statute – and 34.5 cents or 142% of Glen Rose ISD's M&O tax rate.

The revenue per WADA that the state establishes for Glen Rose ISD is \$8,893, but the revenue per WADA for Lorena students is only \$5,691, which is \$289 dollars below the state average and \$3,202 per WADA below that of Glen Rose.

Each of these districts has approximately 2,000 WADA. The total M&O revenue for Glen Rose ISD at that WADA level, therefore, would be approximately \$17,786,000. For Lorena, it would be \$11,382,000. The gap is \$6,404,000. That funding gap constitutes inequities for both the taxpayers and the students.

Such school funding policies encourage people and businesses to move into a district with high wealth and significantly better funded schools, making them even more wealthy, while discouraging people and businesses from moving into low-wealth districts with high tax rates and schools with fewer resources, thereby making those communities poorer. Too, the community of Lorena has almost \$6,500,000 less coming in to their economy than Glen Rose, so there are fewer jobs, less spending, and lower sales tax revenues in Lorena. School funding levels affect local economics in many ways.

Such inequities are evident in districts of every size. Two mid-size districts (see Figure 3) are San Benito in Cameron County, one of the border school districts, and Grapevine-Colleyville ISD in the Dallas-Fort Worth area.

District	Tax Rate	Revenue/WADA	Allocation
Grapevine-Colleyville ISD	\$1.0400	\$6,275	\$87,850,000
San Benito ISD	\$1.1700	\$5,833	\$81,662,000
Gaps	\$0.1300	\$442	\$6,188,000

Figure 3: Grapevine-Colleyville ISD and San Benito ISD Approximately 14,000 WADA

Data source: Texas Education Agency, 2010-2011, via the Equity Center

Grapevine-Colleyville ISD's tax rate is \$1.04, yet San Benito taxes at the maximum rate of \$1.17. The per-WADA revenue for Grapevine-Colleyville ISD is \$6,275. San Benito receives only \$5,833, even though they tax at a rate that is \$0.13 higher than Grapevine-Colleyville ISD.

San Benito ISD, at 85 percent, has one of the highest rates of economically disadvantaged children in the state. One would think that this district should receive significantly more funding than Grapevine-Colleyville with an economically disadvantaged rate of 20 percent. Grapevine-Colleyville ISD has more than \$6,000,000 more to educate its students than does similarly sized San Benito ISD.

Austin ISD and Fort Worth ISD as described in Figure 4 are examples of large districts.

In this case Fort Worth ISD has a lower tax rate than Austin ISD, the high-wealth district. Austin ISD has \$1,138 more per WADA of M&O revenue to spend than Fort Worth ISD. If Austin ISD had not taxed the additional \$0.039, the gap would have been \$962. That translates into about \$96,000,000 more than Fort Worth has for a similar number of WADA—every year, year after year. As it stands, Austin ISD has almost \$114,000,000 more to spend each year than Ft. Worth ISD. Although Austin ISD is a district with a rate of 65 percent economically disadvantaged students, Fort Worth ISD's rate is 78 percent.

Figure 4: Austin ISD and Fort Worth ISD Approximately 100,000 WADA

District	Tax Rate	Revenue/WADA	Allocation
Austin ISD	\$1.0790	\$6,542	\$654,200,000
Fort Worth ISD	\$1.0400	\$5,404	\$540,400,000
Gaps	\$0.0390	\$1,138	\$113,800,000

Data source: Texas Education Agency, 2010-2011, via the Equity Center

Whatever it is that \$114 million more dollars buys in Austin ISD for their students would also certainly benefit Fort Worth ISD students. Why would Texas leaders establish a funding system that says that Austin ISD students are worth \$114 million more dollars annually than the students in Fort Worth ISD? A funding system that truly recognizes the actual cost of an equitable and adequate education for all children would allocate equal dollars per weighted student to Fort Worth ISD and Austin ISD.

The truth is the \$6,542 per WADA Austin ISD has is probably not enough for a first-class education, nor enough to meet community expectations for their students. The same can be said for Glen Rose ISD and Grapevine-Colleyville. There are many districts in Texas with much higher allocations per WADA than others, but even some of the most advantaged districts are still generally below what is spent per student in other states. For example, according to an Education Week study using 2008-2009 data, only 12.1 percent of Texas students are in districts with perpupil expenditures at or above the national average.²² Too, the poverty rate in Texas is one of the highest in the nation. This reality not only makes the plight of schools in low-wealth districts even more desperate, but it also illustrates how badly broken and under-funded, as well as inequitably funded, the Texas system is. Finally, since when has Texas settled for being average in anything? Our whole identity is defined by being THE best!

National research verifies the need to fix our system. In a study conducted by Education Week (January 12, 2012), per student expenditures are calculated for each state, adjusted for cost differences and include all funds (national, state, and local). In other words, the researchers made every attempt to compare apples to apples. The adjusted 2009 per student expenditures for Texas were \$8,654, ranking us 49th among the states.²³ Only Nevada spent less. This study was based on 2009 data, so given the \$5.4 billion that state leaders cut from education budgets for 2011-2012 and 2012-2013 school years, Texas undoubtedly fares even worse now.

The gap (\$3,011) between average Texas expenditures and the national average in 2009 is similar to the average gap between districts in Texas. We must consider the implications for districts in Texas that rank low in funding and understand that the children in those districts must compete not only with the most generously funded districts in Texas, but also with the children from almost every other state in the union. Then we must also consider the implications for Texas children when Texas has the fifth highest child poverty rate in the country, and the United States has next to the highest child poverty rate of the 35 richest countries in the world.

Texas children, on average, are not just economically disadvantaged; they are "Texas disadvantaged." Given current state policies, Texas children would be better off living in almost any other state in the union. That is a sad thing to realize and a sad thing to have to say.

Baker (2012), a national expert in school finance, points out that "several large, diverse states still maintain state school finance systems where the highest need districts receive substantially less state and local revenue per pupil than the lowest need districts."²⁴ Texas is, obviously, one of those states.

Baker also makes the point that

... districts with higher student needs than surrounding districts in the same labor market don't just require the same total revenue per pupil to get the job done. They require more. Higher need districts require more money simply to recruit and retain similar quantities (per pupil) of similar quality teachers. That is, they need to be able to pay a wage premium. In addition, higher need districts need to be able to both provide the additional program/ service supports necessary for helping kids from disadvantaged backgrounds (including smaller classes in early grades) while still maintaining advanced and enriched course options.²⁵

One way to analyze the fairness or unfairness of the state's school funding system is to contrast the differences in the per-WADA allocations for districts that receive the least and the most dollars. Data for the 100 districts with the lowest revenue per WADA and the highest are provided in Figure 5.

	Lowest Revenue	Highest Revenue	Gaps
	per WADA	per WADA	
Average M&O Revenue per WADA	\$5,210	\$8,292	\$3,082
Range: M&O Revenue/WADA	\$4,650-\$5,313	\$6,789-\$14,218	
# Enrolled	393,993	107,203	
# Free/Reduced Meals	254,013	48,545	
% Free/Reduced Meals	64%	45%	

Figure 5: 100 Districts with Lowest Revenue per WADA and 100 Districts with Highest Revenue per WADA

Data Source: Texas Education Agency, 2010-2011, via Equity Center

The Texas system provides \$3,082 per WADA more to the wealthiest districts than to the poorest. The poorest districts' average allocations are \$770 less per WADA than the state average.

The per-WADA allocation ranges from a low of \$4,650 to a high of \$14,218 per WADA, a difference of almost \$10,000 per WADA. How much more inequitable could the system possibly be? The best-funded district (\$5,313) among the poorest districts receives almost \$1,500 less per WADA than the worst-funded wealthy district (\$6,789).

The poorest 100 districts are educating almost 400,000 children, 290,000 more students than the 100 wealthiest districts, which means more children suffer from the current system than benefit from it.

The poorest 100 districts, at 64 percent, are above the state average in the percent of students eligible for free/reduced-price meals. The 100 wealthiest districts have a 45 percent rate, 15 points below the state average.

The Texas system is not a "Robin Hood" system, as it is commonly called. In reality, it is a reverse of "Robin Hood." Property-poor school districts have less funding than they need and are, in fact, entitled to, and their sacrifice is, as is the sacrifice of the district's taxpayers, required in the current funding system to "hold harmless" the significantly higher allocations per WADA in property-wealthy districts. A "Robin Hood" system would distribute money equitably, fairly,

according to the needs of the students. A reverse of "Robin Hood" is the current inadequate, inequitable, unconstitutional system. It's the "Sheriff of Nottingham" plan!

Report Card for State Leaders

"Often left out of this debate is the fact that having a predictable, stable and equitable system of education finance is of critical importance to the success of any improvement effort." Third-party experts in school finance have issued reports evaluating the school funding systems in the 50 states and the District of Columbia. Texas does not fare well.

For example, Education Week (2012, January 12) publishes annually a report entitled Quality Counts.²⁶ Researchers graded each state in the area of school finance, averaging the performance scores in eight different areas. Texas earned a D+ or a score of 67.6. Only four states had worse scores. Texas performed worse than the national average in all eight areas. These low scores are not acceptable to a state that has never considered itself even average, much less below average, in anything that matters. Of particular concern were the following: Texas ranked 49th among the states in per student expenditures adjusted for regional cost differences. Based on 2009 data, Texas spent only \$8,654 per student. The national average was \$11,665.

The grade that Texas received in school finance by Education Week two years ago in 2010 was also a D+.²⁷ We can only guess what it will be in 2013 after another two years of budget cuts.

Another recently published report card by the Education Law Center and Rutgers Graduate School of Education entitled Is School Funding Fair? A National Report Card (June 2012)²⁸ introduced a reference to the importance of a good education to a sound economy, and offers this warning to policymakers:

Often left out of this debate is the fact that having a predictable, stable and equitable system of education finance is of critical importance to the success of any improvement effort. Sufficient school funding, fairly distributed to address concentrated poverty, is an essential precondition for the delivery of a high-quality education through the states. Without this foundation, education reforms, no matter how promising or effective, cannot be achieved and sustained.²⁹

If we translate this statement for Texas, it means that since we do not have in our state a "predictable, stable equitable system" that is "sufficient" and "fairly distributed," it is state leaders who are leaving children behind, not the educators. To focus on school accountability as the only policy that matters is not going to work. Instead, the report states,

In order to address the challenges of concentrated student poverty and meet the needs of English-language learners and students with disabilities, states must develop and implement the next generation of standards-driven school finance systems, expressly designed to provide a sufficient level of funding, fairly distributed in relation to student and school need.³⁰

The report constructs its report card for the states using a number of indicators:

- Texas ranks 43rd among the states on Funding Level (the overall level of per-pupil funding for each state, as compared with the 50 states; major factors include student poverty, regional wage variation, economies of scale, population density, and the interplay between population density and economies of scale).³¹
- Texas received a grade of D in the measure of Funding Distribution (the distribution of funding to districts within states, relative to student poverty). Texas is one of 16 states with "regressive" funding systems; that is, "providing high poverty districts with less state and local revenue than low-poverty districts."³²
- Texas receives a grade of C in State Effort (spending relative to the per capita GDP by state in 2000 dollars).³³
- Texas ranks 22nd among the states on the measurement of Coverage (the share of schoolage children attending the state's public schools and the median household income of those children).³⁴

In the summary of the study, the researchers note that Texas went down in the two years between 2007 and 2009 in three of the four measurements.³⁵ The only area of improvement was State Effort, which, ironically and tragically, has now also declined, given the 2011-2012 biennium \$5.4 billion cuts.

The study begins its conclusion with this statement:

Perhaps the most enduring and disturbing feature of public education in many states is the deep disparity in the opportunity to learn for students in low-wealth, high-poverty communities as compared to their more advantaged peers in more-affluent public schools and districts.

The writers continue:

... the root cause of these disparities is the searing inequity in so many of the state school finance systems. Most of these systems are broken, failing to deliver the funding needed to ensure that all students—especially low-income (at-risk) students, students in high-poverty schools, and English-language learners—have access to, and can achieve, rigorous academic standards and be college- and workforce-ready upon graduation.³⁶

The data are clear. The performance of Texas relative to the needs of children and their schools is "Unacceptable."

A Sense of Urgency

Children in inadequately and inequitably funded schools seem to be invisible to state leaders. They don't see their faces. They don't see the dreams in their eyes for a prosperous future. Neither are they seeing the despair that many feel because of the economic disadvantages and hopelessness that surround them.

The data included in this chapter clarify a very troublesome trend in Texas in terms of the escalating number of children who are economically disadvantaged. It is difficult enough to grow up without adequate economic resources. More Texas children are facing that challenge than not. It is even worse when that Texas child lives in a low-wealth district where the schools in that district are receiving sometimes hundreds or even thousands of dollars less per student than they would if it was a high-wealth district. It is unacceptable even when the funding is more equitable, for it is still likely not enough to enable a child to have the opportunities he or she needs to learn, to realize his or her potential. We cannot tolerate a public school funding system that is inadequate and inequitable for the vast majority of our children. Every Texas child deserves a school that provides him or her with a full and meaningful opportunity to learn.

The UNICEF report on child poverty among the world's most affluent nations states that

... failure to protect children from poverty is one of the most costly mistakes a society can make. The heaviest cost of all is borne by the children themselves. But their nations must also pay a very significant price—in reduced skills and productivity, in lower levels of health and educational achievement, in increased likelihood of unemployment and welfare dependence, in the higher costs of judicial and social protection systems, and in the loss of social cohesion.³⁷ "... failure to protect children from poverty is one of the most costly mistakes a society can make. The heaviest cost of all is borne by the children themselves."

They continue:

Even more important is the argument in principle. Because children have only one opportunity to develop normally in mind and body, the commitment to protection from poverty must be upheld in good times and bad. A society that fails to maintain that commitment, even in difficult economic times, is a society that is failing its most vulnerable citizens and storing up intractable social and economic problems for the years immediately ahead.³⁸

Will they survive? Will they be able to overcome the effects of economic disadvantages at home and at school? A quality education is one of the best protections that we can give to children to overcome poverty. Our challenge as citizens in a democracy is to hold leaders accountable for their policies. Our Texas Constitution, the value system of our founders, the goodness and aspirations in present-day Texans' hearts insist that high-quality education for all the children is important.

We must make it so. Their day is today. Children cannot wait.

ENDNOTES

- 1. Texas Education Agency (2012). 2011 Snapshot. http://ritter.tea.state.tx.us/perfreport/snapshot/2011/state.html .
- 2. National Center for Education Statistics (2012). Participation in Education: Public School Enrollment. The Condition of Education 2012, p. 20. Retrieved Nov. 22, 2012, from http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2012045.
- 3. Jensen, E. (2009). Teaching with poverty in mind: What being poor does to kids' brains and what schools can do about it. Alexandria, VA: Association for Supervision and Curriculum Development, p. 7.
- 4. Tokuhama-Espinosa, T. (2010). The new science of teaching and learning: Using the best of mind, brain, and education science in the classroom. New York City, NY: Teachers College, Columbia University. Sousa, D. A. (Ed.) (2010). Mind, brain, and education: Neuroscience implications for the classroom. Bloomington, IN: Solution Tree Press. Bransford, J. D., Brown, A. L. & Cocking, R. R. (Eds.) (1999). How people learn: Brain, mind, experience, and school. Washington, DC: National Academy Press.
- 5. Valencia, R. R. (2008). Chicano students and the courts: The Mexican American legal struggle for educational equality. New York City, NY: New York University Press, p. 92.

- See, for example, Imazeki, J. & Reschovsky, A. (2004, October). Does No Child Left Behind place a fiscal burden on states? Evidence from Texas. Retrieved August 6, 2012, from http://minds.wisconsin.edu/handle/1793/36368. Texas Association of School Administrators & Texas Association of School Boards (November 2008). Report on school district mandates: Cost drivers in public education. Retrieved July 19, 2010, from <a href="http://www.tasb.org/legislative/leg
- 7. McNeil, L. M., Coppola, E., Radigan, J., & Heilig, J. V. (2008, January 31). Avoidable losses: High-stakes accountability and the dropout crisis. Education Policy Analysis Archives. Retrieved August 6, 2012, from <u>http://epaa.asu.edu/ojs/article/view/28</u>. Cortez, A. (n.d.). Accountability that doesn't hurt students. Retrieved August 6, 2012, from <u>http://www.idra.org/IDRA Newsletter/November - December 2010 Student Success/Accountability that Doesn't Hurt Students/</u>. Carr, P. (2007, May 31). Review of Facing accountability in education: Democracy and equity at risk. Teachers College Record. Retrieved August 6, 2012, from <u>http://www.tcrecord.org/Content.asp?ContentID=14508</u>. Newmann, F. M., King, M. B., & Rigdon, M. (2009, December 31). Accountability and school performance: Implications from restructuring schools. Harvard Educational Review, pp. 41-75. Retrieved August 6, 2012, from <u>http://her.hepg.org/content/14141916116656q6/</u>. Sandholtz, J. H., Ogawa, R. T., Scribner, S. P. (2004). Standards gaps: Unintended consequences of local standards-based reform. Teachers College Record. Retrieved August 6, 2012, from <u>http://www.tcrecord.org/Content.asp?ContentID=11570</u>.
- 8. See Save Texas Schools (2012). http://savetxschools.org.
- Center for Public Policy Priorities (2012). Choices: The Texas We Create. State of Texas Children 2012. Texas KIDS COUNT Annual Data Book. Austin, TX: CPPP, p. 8.
 Everett, J. K. (3 June 2012). Let's make sure this isn't a hungry summer. Waco Tribune-Herald, p. 8A.
- Pollard, K. (2008 May). State-by-state costs of child poverty in the U.S. Population Reference Bureau. Retrieved June 3, 2012, from <u>http://www.prb.org/</u> <u>Articles/2008/childpovertyestimates.aspx?p=1</u>.
- 12. Texas Education Agency (2012). Snapshot 2011 Summary Tables. District Size. Retrieved June 6, 2012, from http://ritter.tea.state.tx.us/perfreport/snapshot/2011/distsize.html. TEA includes charter schools in their total of 1,228 districts, and this study excludes them.
- CPPP (2012), p. 8. See note 6. See also Kaufmann, G. (25 May 2012). This week in poverty: Wage theft in the city of millionaires. The Nation. Retrieved June 3, 2012, from <u>http://www.thenation.com/blog/168066/week-poverty-wage-theft-city-millionaires?rel=emailNation</u>.
- 14. Clawson, L. (16 August 2011). Rick Perry's Texas "miracle" is built on minimum wage jobs. Daily Kos. Retrieved June 8, 2012, from http://www.dailykos.com/ story/2011/08/16/1007494/-Rick-Perry-s-Texas-miracle-is-built-on-minimum-wage-jobs
- 15. United States Department of Labor. Wage and Hour Division. (1 January, 2012). Minimum wage laws in the states. Retrieved June 8, 2012, from http://www.dol.gov/whd/minwage/america.htm#Texas.
- 16. Edelman, P. (2012, July 28). Poverty in America: Why can't we end it? The New York Times. Retrieved August 6, 2012, from <u>http://www.nytimes.</u> com/2012/07/29/opinion/sunday/why-cant-we-end-poverty-in-america.html?pagewanted=all . See also Edelman, P. (2012). So rich, so poor: Why it's so hard to end poverty in America. New York City, NY: The New Press. Stiglitz, J. E. (2012). The price of inequality: How today's divided society endangers our future. New York City, NY: W. W. Norton. Wilkinson, R. & Pickett, K. (2009). Why greater equality makes societies stronger: The spirit level. New York City, NY: Bloomsbury Press.
- 17. United States Census Bureau (2010). Table 233. Educational Attainment by State: 1990 to 2009. Retrieved June 6, 2012, from http://www.census.gov/compendia/statab/2012/tables/12s0233.pdf
- Annie E. Casey Foundation (2010). KIDS COUNT Data Center. Data across states: Children in poverty, 2010. Retrieved June 3, 2012, from <u>http://datacenter.kidscount.org/data/acrossstates/Rankings.aspx?ind=43</u>. This study uses the federal definition of poverty.
- 19. UNICEF Innocenti Research Centre (2012). Measuring child poverty: New league tables of child poverty in the world's richest countries. Innocenti Report Card 10. UNICEF Innocenti Research Centre, Florence, p. 3. Retrieved June 1, 2012, from http://www.unicef-irc.org/publications/660.
- 20. Duncan, G. J. & Murnane, R. J. (2011). Whither opportunity? Rising inequality, schools, and children's life chances. New York City, NY & Chicago, IL: Russell Sage Foundation and Spencer Foundation, pp. xviii-xix.
- Texas school finance is a very complex system that cannot be fully explained in this report. For more information, please see the following websites: Equity Center: <u>http://www.equitycenter.org/</u>. Intercultural Development Research Association (IDRA). Fair funding for the common good: <u>http://www.idra.org/Education</u> <u>Policy.htm/Fair Funding for the Common Good/</u>Texas Association of School Boards: <u>http://www.tasb.org/legislative/resources/finance/index.aspx</u>. Texas Education Agency: School finance presentations: <u>http://www.tea.state.tx.us/index2.aspx?id=6791&menu_id=645&menu_id2=789</u>.
- 22. For explanations and analyses of Cost-of-Education Indexes, see the following: Colbert, P. (March 2010). The Cost of Education Index. Equity Center News & Notes, pp. 2-3, 6. Duncombe, W. D. & Yinger, J. M. (1999). Performance standards and educational cost indexes: You can't have one without the other. In H. F. Ladd, R. Chalk, & J. S. Hansen (Eds.), Equity and adequacy in education finance: Issues and perspectives, pp. 260-297. Washington, DC: National Academy Press. Taylor, L. (n.d.). Adjusting for geographic variations in teacher compensation. Updating the Texas Cost-of-Education Index. Texas A&M University. Retrieved Aug. 11, 2010, from http://bush.tamu.edu/research/faculty/TXSchoolFinance/papers/AdjustingForGeographicVariationsInTeacherCompensation.pdf.
- 23. Hightower, A. M. (2012, January 12). On policy, student achievement, states pressing to measure up. Education Week, 31:16, p. 62.
- 24. Hightower, A. M. (2012, January 12). See note 22.
- 25. Baker, B. (2012, June 2). America's most screwed city schools: Where are the least fairly funded city districts? School Finance 101, p. 2. Retrieved June 8, 2012, from http://schoolfinance101, p. 2. Retrieved June 8, 2012, from http://schoolfinance101, p. 2. Retrieved June 8, 2012, from http://schoolfinance101, p. 2. Retrieved June 8, 2012, from http://schoolfinance101.wordpress.com/2012/06/02/americas-most-screwed-city-schools-where-are-the-least-fairly-funded-city-districts/.
- 26. Baker, B. (2 June 2012). See note 24.
- 27. Hightower, A. (12 January 2012), p. 62. See note 22.
- 28. Hightower, A. (14 January 2010). State of the states: Holding all states to high standards. Quality Counts 2010. Education Week.
- Baker, B., Sciarra, D., & Farrie, D. (2012 June). Is school funding fair? A national report card (2nd ed.). Newark, NJ: Education Law Center. Retrieved on June 13, 2012, from http://www.schoolfundingfairness.org. See also Strauss, V. (2012, June 18). School funding disparities persist, analysis shows. The Answer Sheet. The Washington Post. Retrieved June 20, 2012, from http://www.washingtonpost.com/blogs/answer-sheet/post/school-funding-disparities-persist-analysis-shows/2012/06/19/gJQA0Cj5nV_blog.html.
- 30. Baker, B., Sciarra, D., & Farrie, D. (2012 June), p. 1. See note 28.
- 31. Baker, B., Sciarra, D., & Farrie, D. (2012 June), p. 1. See note 28.
- 32. Baker, B., Sciarra, D., & Farrie, D. (2012 June), pp. 10-12. See note. 28.
- 33. Baker, B., Sciarra, D., & Farrie, D. (2012 June), pp. 13-15. See note. 28.
- 34. Baker, B., Sciarra, D., & Farrie, D. (2012 June), pp. 22-23. See note. 28.
- 35. Baker, B., Sciarra, D., & Farrie, D. (2012 June), pp. 24-25. See note. 28.
- 36. Baker, B., Sciarra, D., & Farrie, D. (2012 June), pp. 26-27. See note. 28.
- 37. Baker, B., Sciarra, D., & Farrie, D. (2012 June), p. 29 See note. 28.
- 38. UNICEF Innocenti Research Centre (2012), p. 1. See note 19.
- 39. UNICEF Innocenti Research Centre (2012), p. 1. See note 19.

WHY MONEY STILL MATTERS

Why Money Still Matters

Even if Texas were Lake Woebegon,¹ with all of our children scoring at or above the proficient level on state assessments and the dropout rate close to zero, schools would still need adequate and equitable resources to operate. Everyone knows that people cannot be productive and efficient if they do not have the resources and tools they need to do the task at hand.

Everyone knows competition is meaningless unless there is a level playing field, where all children have access to the opportunities to learn that enable him or her to be successful. Well-constructed costs of education indices can now calculate what the level of funding must be to make it possible for all children to master the curriculum standards that the state requires in its accreditation system and for all children to be college- or workforce-ready upon high school graduation. So, yes, of course money matters.

Those who advocate that the taxpayers should punish schools with austere budgets until they achieve those standards simply are not thinking—or they have another agenda to destroy the credibility of public schools to the point of being able to eliminate them through privatization strategies.²

Home versus School? or Home and School Influence?

Some people believe that it is the home that makes the difference in student achievement, not the school. The evidence contradicts this convenient belief over and over and over. Wealthy parents, more than any other group, contradict it with every breath, especially in regard to their own children. In fact, everyone's belief in the "American dream" is reliant on the promise of social mobility, which rarely occurs without quality education. "Those who advocate that the taxpayers should punish schools with austere budgets until they achieve those standards simply are not thinking—or they have another agenda to destroy the credibility of public schools to the point of being able to eliminate them through privatization strategies." The wealthy have, in large part, left the city districts. They have built new homes, moved outside the district boundaries, and created their own schools. They have poured two and three times as much money into school budgets to create truly exemplary schools—because they know that schools must have high-quality teachers with high-quality working conditions, including high-quality facilities and plenty of attractive instructional materials. They place a high value on small classes (which is why private schools prominently advertise class size in their promotion materials). They know that all children must have diverse opportunities to learn, including those with learning disabilities and those who are gifted/talented. They know that schools must have challenging expectations and curriculum, accompanied by appropriate teaching/learning resources. They value technology and Internet access, so the schools of wealthy children have the best that is available and plenty of it. They also value rich and highly engaging co- and extracurricular programs, such as bands, choirs, theatre programs, dance, visual arts, journalism publications, debate squads, science competitions, and athletics—and they fund them well. They know that all these things do, indeed, matter, and they matter a great deal.

If school budgets cannot afford all that parents expect, they fund what they value through parentrun fundraisers, booster clubs, and, in recent years, through generous tax-deductible donations to their local education foundations. So they gladly provide good schools for their children. If home were all that was important, none of these things would matter. They spend their money to ensure their children have every advantage in and out of classrooms - and well they should! Don't all of us want all those things for our children? The problem, however, is that a large majority of the state's children are economically disadvantaged in and out of classrooms—every day, every year.

Homes, of course, do matter. Wealthier families provide resources for their children that economically disadvantaged families can only dream of. Rothstein (2004), an economist at the Economic Policy Institute, analyzes the academic effects of out-of-school experiences and concludes:

... scholars have never been able to attribute more than about a third of student achievement variation to school effects. Those scholars may even be overstating the school effect— analyses of data from summer learning have often seemed to show that the entire growth in the gap during the years children are in school develops during summer vacations, and so is probably attributable to out-of-school experiences. In these analyses, typical children from lower-class families seem to progress as rapidly during the school year as typical children

from middle-class families, but the lower-class children fall behind in the summer, either because middle-class children learn more or forget less in the summer months.³

... The reasons for these summer learning gaps are not hard to fathom. Any skill takes practice to develop; reading is no different. Children who read for pleasure during the summer will be better readers, on average, than children who do not. As was shown earlier, middle-class children are more likely to come from homes where recreational reading has high status; as a result, this is the sort of activity to which children are likely to turn in their leisure time.⁴

... During the summer, middle-class children are more likely to attend camp, take family vacations that expose them to new and different environments, go to zoos and museums, or take sports, dance, or music lessons. Each of these experiences for middle-class children, or lack of them for lower-class children, may contribute to growth in the achievement gap during the summer.⁵

... Even during the months that students are in school, they typically attend for only six hours each weekday. In afternoons, evenings, and weekends, middle-class children have more intellectually stimulating experiences, are exposed to more sophisticated adult language, and benefit from more economic security. If the gap really does not grow during the regular school year, schools are probably doing a great deal to marrow it during the regular school day, and these efforts are offset by gap-widening experiences in the after-school hours.⁶

... We can't construct tests that separate learning during the school day from that in the afternoon or on weekends, but summer learning data are consistent with the achievement gap being entirely due to children's experiences before they enter kindergarten, in afternoons, and on weekends, and during the summer. A strategy to close the achievement gap between lower-class and middle-class children cannot ignore these non-school hours.⁷

The lesson, therefore, is that schools are doing a good job teaching all kinds of kids during the school day. However, in order for there to be equity, the schools must provide programming during out-of-school hours that help to make up the difference in home/family enrichment experiences. If our national goal is, indeed, to leave no child behind; if our state goal is that every student pass the STAAR examinations and that every student graduate from high school ready for college or the workforce, then money matters to ensure quality instruction, small classes,

preschool, in-school interventions, and challenging curriculum. If we really want every economically disadvantaged child to graduate workforce- or college-ready, then money matters. If we really want every immigrant child to be proficient in English, then money matters. If we really want children with disabilities to be able to fulfill their highest potential, then money matters. Funding is required to pay for expanded preschool programs, in-school interventions, after-school programs, enrichment experiences in co- and extra-curricular programs, and enriched summer programs for the children who struggle to keep up with their middle-class peers. These kinds of programs are among the reasons why it costs more to educate a child coming from an economically disadvantaged home than one from a middle- or upper-class home. They are not frills. They are not optional. They are essential for education—and valued by all parents, regardless of socioeconomic status.

The court stated in Serrano I, a landmark California case in school finance, that "Affluent districts can have their cake and eat it too; they can provide a high quality education for their children while paying lower taxes. Poor districts, by contrast, have no cake at all."⁸ Our job is to ensure that everyone has cake!

"The evidence indicates that neither an extreme centralized bureaucratization nor a complete deregulation of teacher requirements is a wise approach for improving teacher quality."

--J. K. Rice, 2003

If money did not matter, wouldn't there be at least some schools in wealthy, well-educated communities with austere budgets? Where teachers were paid minimum salaries and efforts were made to hire the youngest, least experienced teachers since they cost the least? Where class sizes were never under 35? Where textbooks were a decade old and falling apart? Where roofs were leaking? Where there were no funds for interventions for children who struggle? Where low bids drove decisions on everything? Where there were few electives, no fine arts programs, and no technology? Where foreign languages were not taught? Where there were no competitive sports teams?

Economists Koski and Levin suggest this test as to whether money matters. See where researchers send their own children to school, they say. Those decisions, they advise, are more important than what their research findings might say.⁹ We could add that all we have to do is look to see where researchers and wealthy, powerful people send their children to school to understand how much money matters in schools.

If money did not matter in Texas school funding, why have we seen intense lobbying from high-wealth districts on behalf of maintaining the "target revenue hold-harmless" scheme that has so dramatically contributed to the growing inequities and inadequacies in Texas? (This provision protects many property-wealthy districts from having to share some, if not most, of their wealth with low-wealth districts.) If money did not matter, would not the people in those districts have willingly and immediately accepted an equitable funding system? If money did not matter, why do Texas propertypoor school districts have to go to court time after time to resolve funding disparities that state leaders do not address?

Baker (2012) explains the solution as follows:

Implicit in the design of state school finance systems is that money may be leveraged for improving both the measured and unmeasured outcomes of children. That is, that money matters to the quality of schooling that can be provided in general and that money matters toward the provision of special services for children with greater educational needs. That is, money can be an equalizer of educational opportunity.

In a typical foundation aid formula, it is implied that a foundation level of "X" should be sufficient for producing a given level of student outcomes in an average school district. It is then assumed that if one wishes to produce a higher level of outcomes, the foundation level should be increased. In short, it costs more to achieve higher outcomes and the foundation level in a state school finance formula is the tool used for determining the overall level of support to be provided.¹⁰

Texas now faces the challenge of making its education budget align with its aspirations for its children—all of its children, so it has to be equitable, as well as adequate.

"Perhaps the most enduring and disturbing feature of public education in many states is the deep disparity in the opportunity to learn for students in low-wealth, high-poverty communities as compared to their more advantaged peers in more-affluent public schools and districts."

--Bruce Baker, et al., June 2012

Poverty and Funding Correlations to Districts' Accreditation Status

The Texas Tribune (2012, April 5) recently published an analysis of the characteristics of school districts at each of the four accreditation ranks: Exemplary, Recognized, Academically Acceptable, and Academically Unacceptable. They found the following:

Of the state's 1,024 school districts, nearly 50 have been identified as "unacceptable" which means fewer than 65 percent of their students passed state math exams and fewer than 70 percent passed them in reading. The ratings also take dropout and graduation rates into account. Those worst-performing districts serve a higher percentage of low-income and minority students—and on average, receive less in funding—than their higher-rated counterparts.¹¹

The interactive graph that they provided showed that in each of four school years from 2006-2007 through 2009-2010 approximately 70 percent or more of the students in the "Academically Unacceptable" districts were economically disadvantaged (eligible for free/reduced meals).¹² On the other hand, fewer than 40 percent of the children in the "Exemplary" districts each of the four years were economically disadvantaged. The graphs are a stair-step upwards, showing increasing percentages of low-income students from "Exemplary" status to "Academically Unacceptable."

The analysis of the amount of M&O revenue per WADA for the districts in each accreditation rank included one year, 2009-2010. On average, the districts deemed by the Texas Education Agency to be "Academically Unacceptable" received a bit more than \$6,000 per WADA, slightly more than the state average of \$5,980. However, the districts ranked as "Exemplary" fared much better. They received almost \$8,000 per WADA on average.¹³ Again, the graph is a set of stair steps downward, showing decreasing funding from the high dollars for "Exemplary" districts to significantly lower amounts for "Academically Unacceptable" districts.

Research has established time after time that it takes more money to bring a child growing up with economic disadvantages to the level required to demonstrate mastery of curriculum standards than it does to educate a similar child from a middle- or upper-class home.¹⁴ We also know that far more children who are economically disadvantaged drop out of school than children from middle- and upper-class homes, unless appropriate interventions are in place. It is unacceptable, therefore, to have a state school funding system that provides more money to districts with low rates of economic disadvantage than to districts with high rates of economic disadvantage. Rebell warns that "The impact of these poverty conditions and of low academic achievement upon the life chances of millions of low-income and minority children is stark."¹⁵ The root cause for the inequities, continues Rebell, is the almost total reliance on property taxes to fund schools.¹⁵ There is also a trend toward requiring local districts to shoulder more and more of the funding responsibilities. School boards have little recourse since they cannot control property values and since the state has established a number of tax exemptions, created barriers to raising local taxes, and implemented an absolute cap of \$1.17 for M&O tax rates (except for six legal exceptions).

Education and the Global Economy

Ever since "A Nation at Risk"¹⁶ was published during the Ronald Reagan administration in 1983 our country has been engaged in an ongoing debate about the purpose of public education, its role in the global economy, about curriculum standards and whether they are appropriate or rigorous or too broad or too many, about the definition of a world-class education, about assessments and what they mean and do not mean, about definitions of proficient performance, about "reform" and what it means, about accountability and what the consequences should be for poor performance—and about whether money matters in achieving our national goals.

We have argued about whether we should have a national curriculum, as do many other countries, or continue to leave standards development to the states. Some have been advocates for national assessments, while others ardently defend states' roles in these areas. President George W. Bush expanded the federal role in education with No Child Left Behind (NCLB) in 2000, significantly adding to the legislation approved by another president from Texas, Lyndon Johnson, with the passage of the Elementary and Secondary Education Act (ESEA) in 1965.

These actions at the federal level, along with numerous reforms in all states, and with the rulings of numerous courts in the majority of states, including Texas, have led to what Rebell calls "an unprecedented and extraordinary commitment to ensuring that all children will meet challenging academic proficiency standards."¹⁷ Beginning with the Brown decision, he says, and with the enactment of NCLB, our country has "now established as the core of state and federal educational policy throughout the United States the stunning proposition that all children can learn and all children must become proficient in meeting challenging state academic standards by a date certain."¹⁸

Rebell notes that "Proficiency for all by 2014 is a radical call for equality of result that breaches the normal boundaries of America's political culture, and is a goal that is, in any event, unattainable at least within the unreasonably brief time period that Congress has established."¹⁹ Although, he says, no one believes that 100 percent proficiency is possible, no one is really willing to lower the

expectation. For the first time, the United States established an expectation that all children would be proficient.

"Proficiency for all," says Rebell, "does serve as important inspirational purpose in expressing a serious national commitment to substantially furthering the education of all students, and especially of blacks, Latinos, students with disabilities, and low-income students whose needs have been neglected in the past." He continues: "It is a rallying cry that says we must overcome the impediments of poverty and racism and seriously pursue equity in education."²⁰

"Current conceptions of accountability hold children accountable to the government for achieving specific levels of test score performance, but they do not hold the government accountable to students, their families, or their schools for providing the basic foundation for learning."

--Linda Darling-Hammond, 2006

To achieve "equity in education," Rebell (and prominent educators across the country)²¹ believe that we must provide what Rebell calls "meaningful educational opportunity,"²² which he says has been increasingly defined by legislation and courts to be the "educational essentials, the particular resources, practices, programs, and services that are required to provide real opportunities, especially for children from poverty backgrounds."²³ He notes that NCLB specifies that the "purpose of this title is to ensure that all children have a fair, equal, and significant opportunity to obtain a highquality education and reach, at a minimum, proficiency on challenging state academic achievement standards and state academic assessments."²⁴

Another massive new expectation for schools arrived with the most recent reauthorization of the Individuals with Disabilities Education Improvement Act (known as IDEA) of 2004.²⁵ The original act (1975) mandated special education, which was never fully funded, as was promised, so states and local districts have made up the difference since its enactment.

The new requirement is for schools to implement a new method of identifying students for special education services called Response-to-Intervention (RTI).²⁶ It is a rare educator who opposes this expectation. But—there was no specific funding appropriated at the federal level for implementation. This important and potentially powerful program which sought to prevent failure, prevent having to identify students for special education, and to prevent dropouts²⁷ has been unevenly implemented in Texas in many districts, if implemented at all. Districts do not have the

money for all the costs, even though in the long run, RTI promises to reduce significantly the costs of remediation, grade retention, dropout recovery, special education, and other incumbent costs to the society when students fail to become educated. RTI could become a major vehicle to ensure equity,²⁸ or in Rebell's words, for "meaningful educational opportunity to learn."²⁹

In addition to the challenging expectations for all students that NCLB specifies at the federal level, Texas has taken additional steps to raise expectations for students. We have a goal that all our children will graduate from high school with college- or workforce-readiness.³⁰ Graduation requirements have been enhanced, now requiring all students to complete four years each of English language arts, mathematics, science, and social studies.³¹ Career/technical education programs have been enhanced and revamped, college and dual credit courses are now available to high school students, and increasing numbers of students are taking Advanced Placement courses. The new STAAR assessments (State of Texas Assessments of Academic Readiness) are more rigorous than previous assessments, and high school students must pass 15 end-of-course examinations in order to earn credit and to graduate.³²

School districts are, understandably, stretched to the maximum and then some, for the most part, to meet—and to fund—the new requirements: additional science labs and space for them, equipment and space for career/ technical education programs/academies; tuition for students to take college courses for credit; transportation for students to/from colleges; professional development for teachers; costs of Advanced Placement programs, including teacher training, materials for students, library materials, and testing fees; and cost of purchasing, maintaining, and replacing technology required for a 21st century education, just to give a few examples. All cost money, and many, if not most, of the new requirements were put in place, absent the additional funding required for implementation.

In addition, to meet accreditation requirements and to meet the NCLB requirements for "adequate yearly progress," interventions at every level of

"Developing such an equitable, reliable base of funding is critically important so that districts can maintain the foundational elements of quality education, and can make locally appropriate, strategic decisions about how to spend resources to achieve results." schooling are required to keep all students on track toward graduation and to make every effort to help students learn what they need to know to pass the state assessments.

How can anyone, then, say that money does not matter? How is any school board or superintendent supposed to deliver on all the federal and state mandates/expectations in a district with high rates of low-income students and low and inequitable funding? How are school boards and educators supposed to ensure 100 percent proficiency without the resources that are necessary, especially for the 60 percent of Texas children who live in low-income homes?

Linda Darling-Hammond is one of the most respected education scholars in the United States. In the last two chapters of her latest book, The Flat World and Education: How America's Commitment to Equity Will Determine Our Future,³³ Darling-Hammond proposes funding solutions. She emphasizes resource equalization strategies and, like Baker, argues for funding systems that are predictable and stable so that school districts can plan and work with confidence that the initiatives they begin can be fully implemented:

Developing such an equitable, reliable base of funding is critically important so that districts can maintain the foundational elements of quality education, and can make locally appropriate, strategic decisions about how to spend resources to achieve results. The reliability and availability of these funds to focus on the core work of education should reduce the wastefulness of a potpourri of startup, wind-down programs that are often created to address the shortcomings of a system that doesn't make adequate investments in strong teaching and personalized environments that would prevent students from falling through the cracks to begin with.³⁴

Categorical programs, she notes, do not close the resource gap. They come and go, are often inadequate, fragment and defuse school efforts, and require too much administrative staff time for management and reporting on various small pots of money. Neither, she says, do they focus on the core work of schools, "getting and supporting good teachers and leaders to focus on student learning in well-designed schools."³⁵

Instead, she proposes "state funding be allocated to students based on equal dollars per student adjusted or weighted for specific student needs, such as poverty, limited English proficiency, and special education status."³⁶ She believes that "Establishing the per pupil base so that it represents what an adequate education to meet the standards actually costs, and determining the weights so that they accurately reflect the costs of meeting differential pupil needs is critically important

for such a scheme to work well."³⁷ In addition, she says, "This weighted student formula allocation should also be adjusted for cost-of-living differentials across large states, and should be supplemented with funds to address unavoidably variable costs such as transportation, which is necessarily extensive in large, sparse rural districts, and school construction, which varies by the age of buildings and changing enrollment patterns."³⁸

Darling-Hammond's recommendations are very similar to the original plan in the Texas school finance system. However, along the way, the equalized system was corrupted with such actions as the so-called temporary, but turned-out-to-be ongoing, "target revenue hold-harmless" provision that became "hold-harm<u>ful</u>."³⁹ The system was further corrupted with the unequalized funding for tier 2 enrichment programs.⁴⁰ There are also major problems since the Cost of Education Index is out-dated.

Money has always mattered. And money still matters.

How Money Is Spent

Many, many experts in school finance agree that money is best spent in several broad areas that improve access and opportunities to learn so that failure is prevented and achievement improves.⁴¹ According to Rebell and Wardenski (2004),

Does money matter in improving the nation's most disadvantaged schools? Since the 1960's, when an influential federal report raised the issue of whether money made a difference in improving public schools for poor and minority students, substantial academic research and judicial analysis has overwhelmingly debunked the methodology of the nay-sayers. The resultant studies and court holdings have strongly concluded that money spent on qualified teachers, smaller class sizes, preschool initiatives, and academic intervention programs does make a substantial difference in student achievement—especially for poor and minority students.⁴²

Baker (2012) finds similarly from his multiple studies. He comments that "Some things work and others do not—a high-spending state or district that allocates resources to ineffective policies might not show results, and vice versa. In short, it's not just how much you spend, but how you spend it."⁴³ He concludes as follows:

To be blunt, money does matter. Schools and districts with more money clearly have greater ability to provide higher-quality, broader, and deeper educational opportunities

"Since the 1960's, when an influential federal report raised the issue of whether money made a difference in improving public schools for poor and minority students, substantial academic research and judicial analysis has overwhelmingly debunked the methodology of the nay-sayers. " to the children they serve. Furthermore, in the absence of money, or in the aftermath of deep cuts to existing funding, schools are unable to do many of the things they need to do in order to maintain quality educational opportunities. Without funding, efficiency tradeoffs and innovations being broadly endorsed are suspect. One cannot trade off spending money on class size reductions against increasing teacher salaries to improve teacher quality if funding is not there for either—if class sizes are already large and teacher salaries non-competitive. While these are not the conditions faced by all districts, they are faced by many.

It is certainly reasonable to acknowledge that money, by itself, is not a comprehensive solution for improving school quality. Clearly, money can be spent poorly and have limited influence on school quality. Or, money can be spent well and have substantive positive influence. But money that's not there can't do either. The available evidence leaves little doubt: Sufficient financial resources are a necessary underlying condition for providing quality education.⁴⁴

A research consensus has evolved around the following areas where money makes a real and significant difference in educational outcome: (1) quality teachers, (2) small classes, (3) preschool programs, (4) interventions for struggling learners, and (5) challenging expectations and curriculum. The next five sections of this report will include a research synthesis for each of these inputs that affect student learning.

So, yes, of course, it matters how the money is spent.

These five areas are the same ones we highlighted two years ago in the Equity Center report, Money Does Matter: Investing in Texas Children and Our Future.⁴⁵ They are, however, also the areas that were most impacted by the state's decision to cut \$5.4 billion from Texas school budgets.

Money still matters, and now it matters even more.
ENDNOTES

- Lake Wobegon is a fictional town in the U.S. state of Minnesota, said to have been the boyhood home of Garrison Keillor, who reports the News from Lake Wobegon on the radio show A Prairie Home Companion. Lake Wobegon is characterized as "the little town that time forgot, and the decades cannot improve," and as the town "where all the women are strong, all the men are good-looking, and all the children are above average." Lake Wobegon. Wikipedia. <u>http://en.wikipedia.org/</u> wiki/Lake_Wobegon.
- 2. The following documents lay out the case for privatization of our nation's public schools. Friedman, M. (1995, June 23). Public schools: Make them private. Retrieved Nov. 22, 2012, from http://www.cato.org/pubs/briefs/bp-023.html. The Friedman Foundation for Educational Choice. School choice. Retrieved Nov. 22, 2012, from http://www.education.policy.com/center/education.policy.com/center/education.policy. Could a students. Texas Public Policy Foundation. Education policy. Retrieved Nov. 22, 2012, from http://www.texaspolicy.com/center/education.policy. Golsan, J. (2012, July 31). Milton Friedman and School Choice: Texas Needs More Options for Parents and Students. Texas Public Policy Foundation. Retrieved Nov. 22, 2012, from http://www.texaspolicy.com/center/education-policy. Golsan, J. (2012, July 31). Milton Friedman and School Choice: Texas Needs More Options for Parents and Students. Texas Public Policy Foundation. Retrieved Nov. 22, 2012, from http://www.texaspolicy.com/center/education-policy. Golsan, J. (2012, July 31). Milton Friedman and School Choice: Texas Needs More Options for Parents and Students. Texas Public Policy Foundation. Retrieved Nov. 22, 2012, from http://www.texastribune.com/center/education-policy. Cot. 28). Senate public education chair Patrick focuses on school choice. The Texas Tribune. Retrieved Nov. 22, 2012, from http://www.texastribune.org/texas-education/real-party-hero-turns-his-gaze-texas-public-schools/.
- 3. The following documents lay out the threat to universal education and even to democracy that privatization of public schools would entail. ALEC Exposed. Privatizing public education. Retrieved Nov. 22, 2012, from <u>http://alecexposed.org/wiki/Privatizing Public Education, Higher Ed Policy, and Teachers</u>. Knopp, S. & Bale, J. (2012, Aug. 13). Why are our public schools up for sale? AlterNet. Retrieved Nov. 22, 2012, from <u>http://www.alternet.org/why-are-our-public-schools-sale</u>. Denby, D. (2012, Nov. 19). Public defender: Diane Ravitch takes on a movement. The New Yorker. Faux, J. (2012, Oct. 15). Education profiteering: Wall Street's next big thing? AlterNet. Retrieved Nov. 22, 2012, from <u>http://www.alternet.org/education/education-profiteering-wall-streets-next-big-thing</u>. See also the "Issues" pages at <u>http://www.texaskidscantwait.org</u> for postings of research, information, and commentary regarding charters, vouchers, parent triggers, educational savings plans, and virtual schools—all privatization strategies that proponents euphemistically call "school choice."
- 4. Rothstein, R. (2004). Class and schools: Using social, economic, and educational reform to close the black-white achievement gap. New York City, NY: Teachers College, Columbia University and Economic Policy Institute, pp. 56-57.
- 5. Rothstein, R. (2004), p. 57. See note 3.
- 6. Rothstein, R. (2004), pp. 57-58. See note 3.
- 7. Rothstein, R. (2004), p. 58. See note 3.
- 8. Rothstein, R. (2004), p. 58. See note 3.
- 9. Serrano v. Priest, 5 Cal.3d at 598 (Cal. 1971).
- 10. Koski, W. S. & Levin, H. M. (2000). Twenty-five years after Rodriguez: What have we learned? Teachers College Record. Retrieved June 25, 2010, from <a href="http://www.tcrecord.org/content.asp?c
- 11. Baker, B. (2012, July 6). School finance formula and money matters basics. School Finance 101. Retrieved July 7, 2012, from http://schoolfinance101.wordpress. com/2012/07/06/friday-finance-101-school-finance-formula-money-matters-basics/
- 12. Murphy, R. (2012, April 5). Interactive: Compare public education stats by accountability rating. The Texas Tribune, p. 1. Retrieved June 29, 2012, from http://www.texastribune.org/library/data/compare-public-education-by-accountability/.
- 13. Murphy, R. (2012, April 5). See note 11.
- 14. Murphy, R. (2012, April 5). See note 11.
- 15. Rebell, M. A. (2007, May 19). Poverty, "meaningful" educational opportunity, and the necessary role of the courts. North Carolina Law Review, 85, pp. 1471-1476. See also Rebell, M. A. (2009). Courts & kids: Pursuing educational equity through the state courts. Chicago, IL: The University of Chicago Press.
- 16. Rebell, M. A. (2007, May 19), p. 1478. See note 14.
- 17. The National Commission on Excellence in Education (1983, April). A Nation at Risk. Washington, DC: United States Department of Education. Retrieved June 29, 2012 from <u>http://teachertenure.procon.org/sourcefiles/a-nation-at-risk-tenure-april-1983.pdf</u>. See also Toppo, G. (2008, August 1). "Nation at Risk": The best thing or the worst thing for education? USA Today, p. 1. Retrieved June 29, 2012, from <u>http://www.usatoday.com/news/education/2008-04-22-nation-at-risk_N.</u> htm.
- 18. Rebell, M. A. (2007, May 19), p. 1467. See note 14.
- 19. Rebell, M. A. (2007, May 19), p. 1506. See note 14.
- 20. Rebell, M. A. (2007, May 19), p. 1507. See note 14.
- 21. Rebell, M. A. (2007, May 19). See note 14.
- 22. Rebell, M. A. (2007, May 19). See note 14. Also see Darling-Hammond, L. (2010). The flat world and education: How America's commitment to equity will determine our future. New York City, NY: Teachers College Press, Columbia University. Also see Ratvich, D. (2010). The death and life of the great American school system: How testing and choice are undermining education. New York City, NY: Basic Books.
- 23. Also see Rothstein, R. (2004). Class and schools: Using social, economic, and educational reform to close
- 24. the black-white achievement gap. New York City, NY and Washington, DC: Teachers College Press,
- 25. Columbia University and Economic Policy Institute. Also see Tough, P. (2008). Whatever it takes: Geoffrey
- 26. Canada's quest to change Harlem and America. Boston, MA: Houghton Mifflin Company. Also see
- 27. Noguera, P. A. & Wing, J. Y. (Eds.) (2006). Unfinished business: Closing the racial achievement gap in our
- 28. schools. San Francisco, CA: Jossey-Bass. Also see Kozol, J. (1991). Savage inequalities: Children in
- 29. America's schools. New York City, NY: Crown Publishers, Inc. Also see Neuman, S. B. (2009). Changing
- 30. the odds for children at risk: Seven essential principles of educational programs that break the cycle of
- 31. poverty. New York City, NY: Teachers College, Columbia University. Also see Neuman, S. B. (Ed.) (2008).
- 32. Educating the other America: Top experts tackle poverty, literacy, and achievement in our schools. Baltimore,
- 33. MD: Paul H. Brookes Publishing Co. Also see Reardon, S. F. (2011). The widening academic achievement
- 34. gap between the rich and the poor: New evidence and possible explanations. In G. J. Duncan & R. J.
- 35. Murnane (Eds.). Whither opportunity? Rising inequality, schools, and children's life chances (pp. 91-115).
- 36. New York City, NY and Chicago, IL: Russell Sage Foundation and Spencer Foundation. Also see Jacob, B. A.
- 37. & Linkow, T. W. (2011). Educational expectations and attainment. In G. J. Duncan & R. J. Murnane (Eds.).
- Whither opportunity? Rising inequality, schools, and children's life chances (pp. 133-162). New York City, NY
 and Chicago, IL: Russell Sage Foundation and Spencer Foundation. Also see Delpit, L. (2012).
- and Chicago, iL. Russen sage roundation and spencer roundation. Also see Deipit, L. (2012)
 (A. but by the standard for the second with the second secon
- 40. "Multiplication is for white people" Raising expectations for other people's children. New York City, NY: The
- 41. New Press.
- 42. Rebell, M. A. (2007, May 19), p. 1507. See note 14.
- 43. Rebell, M. A. (2007, May 19), p. 1510. See note 14.

- 44. Rebell, M. A. (2007, May 19), p. 1512. See note 14.
- 45. Individuals with Disabilities Education Improvement Act (2004). Pub.L. 101-476.
- Texas Education Agency (2008). Response to Intervention Guidance Document. Retrieved June 29, 2012, from http://www.tea.state.tx.us/index2.aspx?id=5817
 National Association of State Directors of Special Education, Inc. (2006). Response to intervention: Policy considerations and implementation. Alexandria, VA: National Association of State Directors of Special Education, Inc. (2006). Response to intervention: Policy considerations and implementation. Alexandria, VA: National Association of State Directors of Special Education, Inc. See also Glover, T. A. & Vaughn, S. (Eds.) (2010). The promise of response to intervention: Evaluating current science and practice. New York City, NY: The Guilford Press. Tileston, D. W. (2011). Closing the RTI gap: Why poverty and culture count. Bloomington, IN: Solution Tree Press and National Association of Elementary Supervisors and Principals. Mellard, D. F. & Johnson, E. RTI: A practitioner's guide to implementing response to intervention. Thousand Oaks, CA: Corwin Press and National Association of Elementary Supervisors and Principals. Sparks, S. D. (2011, March 2). Districts walk fine line in funding RTI programs. Education Week. A Special Report on Response to Intervention. 30:22, p. S15.
- 48. Testimony of Bonnie A. Lesley before Commission on Equity and Excellence (2011, June 8). Conrad High School. Dallas, Texas, p. 9. Lesley asked the Commission to consider full funding and implementation of RTI as a vehicle for achieving equity of outcomes in schools. She wrote: "We hope that you will see the importance of interventions at all stages of development, as needed to keep students on a path to success. Funding the RTI requirements would be a huge step forward to ensure that appropriate interventions are available in every school."
- 49. Rebell, M. A. (2007, May 19), pp. 1468-1471. See note 14.
- 50. Texas High School Completion and Success Initiative Council (2007, May). Critical components. Austin, TX: Texas Education Agency. Retrieved July 16, 2012, from http://www.tea.state.tx.us/index2.aspx?id=4856&menu_id=814. Texas Association of School Boards (2009, March). Barriers to Implementing College and Workforce Readiness Initiatives in Texas. Retrieved June 29, 2012, from http://www.tasb.org/legislative/resources/documents/barriers_handout.pdf.
- 51. Chapter 74. Curriculum Requirements. Subchapter G. Graduation Requirements, Beginning with School Year 2012-2013. Texas Education Code. Retrieved June 29, 2012, from http://ritter.tea.state.tx.us/rules/tac/chapter074/ch074g.html .
- 52. Texas Education Agency (2011). STAAR FAQs. Retrieved June 29, 2012, from www.tea.state.tx.us/student.assessment/staar/faq.pdf.
- 53. Darling-Hammond, L. (2010). See note 21.
- 54. Darling-Hammond, L. (2010), p. 311. See note 21.
- 55. Darling-Hammond, L. (2010). See note 21.
- 56. Darling-Hammond, L. (2010). See note 21.
- 57. Darling-Hammond, L. (2010). See note 21.
- 58. Darling-Hammond, L. (2010). See note 21.
- 59. Equity Center (2008, May). Sometimes I feel like a 41—sometimes I don't. Equity Center News & Notes, pp. 1-6. Also see Equity Center (2008, December). Eliminating the target revenue hold-harmless. Equity Center News & Notes, 27(5), pp. 1-2.
- 60. Equity Center (2010, April). The high school allotment. Equity Center News & Notes, 29(3), pp. 6-9.
- 61. Rebell, M.A. (2007, May 19), p. 1540. See note 14. Rebell states: "Virtually all economists and fiscal policy analysts agree that money matters in education—if the money is spent well. The public has expressed a willingness to pay higher taxes to support education reform—if the money is used well. Ensuring accountability and the effective use of funds is a function for which the courts are particularly well suited."
- 62. Rebell, M. A. & Wardenski, J. J. (2004, January). Of course money matters: Why the arguments to the contrary never added up. New York City, NY: The Campaign for Fiscal Equity, Inc. Retrieved July 16, 2012, from http://www.schoolfunding.info/resource_center/research/MoneyMattersFeb2004.pdf
- 63. Baker, B. (2012), p. 7. See note 10.
- 64. Baker, B. (2012), p. 18. See note 10.
- 65. Lesley, B. A. (2010). Money Does Matter: Investing in Texas Children and Our Future. Austin, TX: Equity Center.

Quality Teachers Matter

According to common knowledge, intuition, anecdotes, and scientific evidence, the very best prevention-of-failure or opportunity-to-learn strategy is to ensure that every child has great teachers—every year. Quality teachers are THE most important school factor in influencing student outcomes, and especially so for economically disadvantaged students.

Texas should have added 4,417 additional teachers in 2011-2012 due to increased enrollments and the need to maintain the 1:22 class size cap for grades K-4.¹ In addition to those lost positions, approximately 11,000 teachers were laid off,² so Texas lost more than 15,000 teachers from classrooms this past year, and we have probably lost them to the profession since most, undoubtedly, had to find a job somewhere else and will be likely to stay there. It is also possible many more teaching positions disappeared since districts did not fill many vacant positions that were open due to transfers, resignations, and retirements. Texas schools have lost nearly 5 percent of the total number of teacher positions in 2011-2012, the first year of the biennium.

In addition to lost teaching positions, more than 10,000 other staff positions were lost, including administrators and support workers. The work that these 25,286 people were doing did not go away, so the teachers remaining are having to work much harder to assume all those duties.³

Teachers and Academic Achievement

Teachers have an enormous influence on children in many areas, not the least of which is their academic achievement. What follows is a small sample of findings from research on the dramatic impacts of teachers on learning:

- At least 20 percent of student achievement is associated with individual teachers.⁴
- Children assigned to three effective teachers in a row scored at the 83rd percentile, and those assigned to three weak teachers in a row scored at the 29th percentile.⁵

- Mathematics students gained five percentage points in one year when assigned to an effective teacher.⁶
- A 2002 Texas study found that having a high-quality teacher throughout elementary school can offset or even eliminate the effects of poverty.⁷
- Having a high-quality teacher four years in a row would be enough to close the Black-White test score gap.⁸
- Good teachers can move students at least four percentile points in one year.9
- Eighth-grade students assigned to a teacher with a major in mathematics scored ten points higher than those whose teachers did not major in mathematics—the equivalent of about a year's worth of learning.¹⁰
- An above-average teacher with 30 students can increase their collective earning power by \$430,000 a year compared to an average teacher. A below-average teacher will cost those same 30 students \$800,000 a year.¹¹
- A standout kindergarten teacher can add \$320,000 a year to her students' earnings as adults, plus improve their health and decrease crime.¹²
- The single most important measurable cause of increased student learning was teacher expertise, along with teacher experience, and master's degrees.¹³

Delpit (2012), who is a K-12 teacher, a teacher educator, and a parent, extols teachers in her new book: "I cannot stress enough how important teaching is... And good teaching is miraculous."¹⁴ In a chapter devoted to teaching, she says that "nothing makes more of a difference in a child's school experience than a teacher."¹⁵ Then she explains:

As I have written before, when I interviewed a group of African American men who were successful but "should not" have been, based on their socio-economic status, their communities, their parents' level of education, and so on, all of them insisted that their success was due in large part to the influence or intervention of one of more teachers during their school careers. These were teachers who pushed them, who demanded that they perform, even when they themselves thought that they could not. The teachers gave them additional help and insisted that they were capable of doing whatever anyone else could do.¹⁶

We have emphasized that money matters most to the schools filled with economically disadvantaged children. It does so, in large part, because it funds quality teachers. Delpit remarks that

For children of poverty, good teachers and powerful instruction are imperative. While it is true that inequality, family issues, poverty, crime, and so forth all affect poor children's learning opportunities, British educator Peter Mortimer found that the quality of teaching has six to ten times as much impact on achievement as all other factors combined.¹⁷

Money matters most and is best spent when it buys quality teachers for all children. The return on investment cannot be ignored—for individual students, for schools and districts, and for all Texans. According to Rivkin, Hanushek, and Kain, "a succession of good teachers could, by our estimates, go a long way toward closing existing achievement gaps across income groups."¹⁸

Teachers' Relationships with Students

It was my sixth grade teacher Ms. Palma in Syracuse, NY and my 9th grade teacher Mr. Miller in the same city that turned me around academically. Not for their innovative curriculum, but their caring hearts. I bought into their teaching because I bought into them. Instead of joining the gangs of my neighborhood, I focused on creating a better life for myself. These two amazing teachers were the foundation of this decision. As a result, I am a first generation college graduate, happily married for 18 years, father of 4 amazing children, an author of three education related books that have done well, and a speaker and trainer at over 1700 education related events worldwide over a 14 year period. I could have become a gang banger or drug dealer; instead I became a student. This is why I am so passionate about this subject. Connectedness and personalization can change academic outcomes.¹⁹

Darrell Andrews posted the comment above on an online discussion group about the importance of personalization of instruction and connectedness in the classroom. Andrews was, as many teachers have been, since so many are first-generation professionals, what is called a "school dependent child." Delpit defines the term:

... while children from more privileged backgrounds can manage to perform well in school and on high-stakes tests in spite of poor teachers,

"For children of poverty, good teachers and powerful instruction are imperative. While it is true that inequality, family issues, poverty, crime, and so forth all affect poor children's learning opportunities, British educator Peter Mortimer found that the quality of teaching has six to ten times as much impact on achievement as all other factors combined." children who are not a part of the mainstream are dependent upon schools to teach them whatever they need to know to be successful.²⁰

Many formerly poor but now successful people make similar comments. The school was the very best part of their lives when they were children.

William Glasser, a cognitive psychologist, would say that such schools were "needs satisfying." His theory is that we all, regardless of age, gender, national origin, language, race/ethnicity, or ability have four psychological needs that must all be met somewhere in our lives or we will act out in ways to secure them. The four needs are (1) love and belonging, (2) freedom or choices, (3) power or a feeling of self-worth or sense of efficacy, and (4) joy, including the joy of learning.²¹

Glasser's book The Quality School²² is filled with stories, examples, and research on the importance of relationships in a school—between and among the adults, between and among the students, the adults with the children, and the adults with parents and community. He feels strongly that children cannot learn and teachers cannot teach in a school laden with fear or anxiety or ongoing conflict, and this view is now scientifically verified by neuroscientists studying how we learn and how we remember.²³ Practices such as corporal punishment, isolating students from peers, grade retention, tracking, punitive consequences for low scores, and so on should be avoided, he says. He sees self-evaluation as the most important form of assessment—for students and adults in the school, and he urges teachers to teach students how to do it.

Teachers' understanding of the psychological needs of their students and actively seeking to ensure that they are met at least on some level in their classrooms, Glasser believes, are as important as content in the curriculum that is taught. If the needs aren't met, children simply will reject the teacher, the school, and the whole value of learning what the school has to teach.²⁴ They become uncooperative and disengaged, and they start planning to drop out physically since they already have mentally.

Delpit would agree with Glasser. She writes:

It is the quality of relationship that allows a teacher's push for excellence. As I have previously written, many of our children of color don't learn from a teacher, as much as for a teacher. They don't want to disappoint a teacher who they feel believes in them. They may, especially if they are older, resist the teacher's pushing initially, but they are disappointed if the teacher gives up, stops pushing.²⁵

When we talk of quality teachers, we are not only talking about their expertise, degrees, and experience. We are talking about their ability to be what Delpit calls "warm demanders,"²⁶ about their ability to form strong supportive relationships for their students and their ability to be their advocates when advocacy is needed—for all children, and especially for children who come from economically disadvantaged homes.

A related duty, therefore, of a quality teacher is to develop what Rothstein calls "non-cognitive goals."²⁷ He cites public opinion polls and interviews with American businesspeople, clergymen, educators, and others as evidence. They call for schools' attention, for example, to teach students to solve problems without violence, prepare students for responsible citizenship, help students to become economically self-sufficient, acquire interests in creative arts, pursue recreational interests, develop a sense of social ethics, learn parenting skills, participate on teams, and facilitate compatibility with others.²⁸

Low socioeconomic status, says Jensen, may cause children to have emotional and social challenges. They "rarely choose to behave differently," he says, "but they are faced daily with overwhelming challenges that affluent children never have to confront, and their brains have adapted to suboptimal conditions in ways that undermine good school performance."²⁹ Because low-income children "are much less likely to have their crucial needs met than their more affluent peers," he continues, "they are subject to grave consequences."³⁰ He lists the following behaviors that may occur among children without strong relationships: "acting-out" behaviors; impatience and impulsivity; gaps in politeness and social graces; a more limited range of behavioral responses; inappropriate emotional responses; and less empathy for others' misfortunes.³¹

Quality teachers have the education, skills, and commitment to teach children with these behaviors and to develop their non-cognitive skills. Jensen's review of research leads him to recommend the following strategies: (1) embody respect for students; (2) embed social skills at every grade level; and (3) be inclusive by creating a "familial atmosphere" and by using "affiliative language."³²

When Delpit writes about teaching students everything they need to know to be successful, she is also talking about the non-cognitive skills that contribute to family stability, a civil society, cooperative teams in the workplace, and a higher quality of life for everyone. She is also suggesting the kinds of strategies that Jensen has identified for good practice.

A true quality teacher is priceless - worth many times more than whatever they cost.

Teachers and Working Conditions

A major challenge for Texas schools is to recruit and then retain quality teachers. Research yields some surprises. More important than any of the usual beliefs about why teachers leave a school or district—or leave the profession entirely—is the quality of working conditions in their schools, all of which cost money. So, again, money still matters.

- The working conditions that matter the most, according to research studies and teacher surveys, are as follows. Their rank order varies according to the individual study.
- Competitive salaries³³
- Small class sizes³⁴
- Administrator support³⁵
- Time for planning and collaboration³⁶
- Quality professional development³⁷
- Safe and clean school facilities³⁸
- In-put on school-wide decisions³⁹
- Adequate instructional resources for students⁴⁰

It is true that teachers migrate toward higher-performing and well-funded schools.⁴¹ Some believe, therefore, that they do so because they want to teach wealthier, easy-to-teach children. Not so, according to recent studies that disentangle the composition of the student body and the actual differences in working conditions in low-wealth and high-wealth schools. They do so because schools with high funding levels are the districts that adequately fund the working conditions that they most prefer,⁴² and those are the schools which best support student learning. To teach effectively, teachers know that they must have access to the people and resources that will support their work.⁴³ Texans must ensure, therefore, that every school in our 1,024 districts has appropriate and adequate resources for learning and the desired working conditions to attract and retain the very best teachers there are.

"... teachers using particular teaching methods, teachers with high expectations for all students, and teachers who have positive studentteacher relationships ... are more likely to have aboveaverage effects on student achievement."

--John Hattie, 2009

Teachers in low-wealth districts are subsidizing Texas schools' operations by millions of dollars annually, beginning with their below-average salaries, continuing with the absence of many of the perks of business staffs, paying for much or all of their professional development, working long hours and week-ends, never having a paid vacation, and continuing with all the things they purchase for the school or for students. Texas ranks 31st among the states in average teacher salaries. According to an annual report published by the National Education Association, the average teacher salary in Texas in 2010-2011 was \$48,638, which included salaries for charter school teachers. The average excluding charters was \$48,838. The average nationally was \$55,623.⁴⁴

Any plans that are made to recruit and retain more teachers, especially high quality teachers, in Texas should definitely provide more resources and support in the area of working conditions.

Teacher Recruitment and Retention

Districts must annually recruit teachers to staff their schools due to enrollment growth, retirements, teachers leaving the district, or teachers leaving the profession. The Texas State Comptroller produced a report in 2006 about the cost to Texans of not paying teachers well. She estimated that the cost of hiring a new teacher was about \$13,000. The cost to Texas in 2005-2006 was an estimated \$502.5 million. That cost can be significantly controlled if Texans fund and implement the working conditions that are most attractive to teachers. About one-third of Texas teachers leave teaching within the first five years,⁴⁵ and the evidence indicates that those who leave tend to be "the brightest and most effective of the young teachers."⁴⁶ Cutting back on quality working conditions results in high costs elsewhere.

A survey by MetLife indicates that the major reasons teachers leave are stress and anxiety related to unrealistic demands, workloads, number of responsibilities, anxieties related to budgets/ funding, lack of resources with which to teach, and low salaries.⁴⁷ A more recent survey by the Bill and Melinda Gates Foundation had similar findings.⁴⁸

Baker's research points out that "Teacher pay is increasingly uncompetitive with that offered by other professions, and the 'penalty' teachers pay increases the longer they stay on the job." He says that "a substantial body of literature has accumulated to validate the conclusion that both teachers' overall wages and relative wages affect the quality of those who choose to enter the teaching profession, and whether they stay once they get in."⁴⁹ He quotes research from Loeb and Page that finds that raising teacher salaries by 10 percent would, in fact, reduce dropout rates 3-4 percent.⁵⁰ While salaries are not the only working condition that matters, Baker says, "they

do affect the quality of the teaching workforce, which in turn affects student outcomes." And, importantly, he notes that "Salaries also play a potentially important role in improving the equity of student outcomes."⁵¹ His conclusion is that "resources used for teacher quality matter."⁵²

Rebell and Wardenski (2004) summarize the research-based concerns about the low quality of teachers' working conditions:

According to the National Commission on Teaching and America's Future, policymakers and school districts too rarely address the root causes of teacher flight: low pay, systemic lack of respect or professionalism, and working conditions that none but the most heroic (or desperate) could endure. Focusing resources on improving the climate for teaching by providing ongoing professional development and leadership opportunities, improving school facilities, lowering class sizes, and respecting the professionalism of teachers by paying them adequately, would, the National Commission argues, go a long way in addressing the high turnover rates that plague underfunded schools.⁵³

An interesting and powerful observation is that virtually all of the working conditions that teachers most prefer are also related to the improvement of student learning and the reduction of dropout rates. Teachers know what is important. Another observation is that teacher voices are rarely consulted when policy is made at the local, state, or federal level, and when it is offered, it is frequently ignored in favor of the recommendations of others. A third one is that in recent years there has been considerable teacher-bashing in the media by politicians and those who are looking for someone to blame for our country's economic woes. Actions have been taken in many states, including Texas, to de-professionalize teaching and, thereby, undermine their credibility in several ways in efforts to greatly reduce the costs of education: lowered standards for teacher certification, "emergency" certification, expansion of alternative certification, elimination of need for certification in charters, attempts to take away educators' pension plans, increased hiring of uncertified Teach for America young people to teach in high-need schools, scripting or "teacherproofing" their work with programs such as CScope, expanding virtual schools and courses, introducing harmful and de-motivating pay-for-performance systems, publishing their teacher evaluations, and attacking their professional organizations.⁵⁴ None of these initiatives is soundly grounded in research on what is best for teachers—or for students, especially students who are economically disadvantaged. And none of it is designed to attract high-guality people to the profession, to recruit them into Texas schools, or to retain them in the profession.

Money still matters in securing the most important resource in schools—its teachers. If we want children to learn and to acquire as much education as they need to function well as parents, in the work place, and as citizens in a democracy, then we have to maintain the American tradition of supporting the common good. Public schools are vital to everyone, and we have to be willing to invest adequate and equitable resources that are needed for them all to be excellent.

Improving Teacher Quality

Nations around the world are consuming the research on how to improve teacher quality, especially for disadvantaged children: those who are poor, those who do not yet speak English in our country, and those with learning disabilities. We know how important teacher quality is to student outcomes. Finland, who is leading the world on international assessments of student learning, has a radically different system than we have in the United States, so more and more Americans are studying their system to see which parts of it might make sense in our country. The changes we need would require an overhaul of everything from who is allowed to become a teacher, to how they are prepared to be teachers in the university, to how they are mentored and further trained on the job, to how they are compensated, to the improvement of working conditions, to the nature of professional development, and to standards of practice.

Finland's implementation of these kinds of major changes have over time reduced the sizable achievement gaps that they had in the 1970's to almost no gaps now. Too, between-school variance in scores has been reduced to about 5 percent, in contrast to the 33 percent variance in OECD countries. These improvements have occurred "despite the fact that immigration from nations with lower levels of education has increased sharply in recent years, and there is more linguistic and cultural diversity for schools to contend with."⁵⁵ Darling-Hammond notes that "In some urban schools, total immigrant children or those whose mother tongue is not Finnish approach close to 50%."⁵⁶

Although most immigrants will come from places such as Sweden, the most rapidly growing newcomer groups since 1990 have been from

"It is the quality of relationship that allows a teacher's push for excellence... many of our children of color don't learn from a teacher, as much as for a teacher."

--Lisa Delpit, 2012

Afghanistan, Bosnia, India, Iran, Iraq, Serbia, Somalia, Turkey, Thailand, and Vietnam. Among them, new immigrants speak more than 60 languages. Yet, achievement has been climbing in Finland and growing more equitable, even as it has been declining in some other OECD nations.⁵⁷

Among the declining nations is the United States.

Darling-Hammond (2010) outlines the multiple changes that the Finnish people have made in teacher education and practice since the 1970's:

- preparation program expanded from three years to a 4-5-year program
- teacher candidates must apply for acceptance into the program, and those admitted include the top 15 percent of applicants
- teacher candidates receive their university training free of charge, plus a stipend for living expenses
- candidates must complete extensive coursework on how to teach, with strong emphasis on research-based strategies
- a full year of clinical experience is required in a model school
- student teachers participate in collaborative problem-solving groups for planning, action, and reflection/evaluation on practice
- teacher candidates learn how to create challenging curriculum and how to develop and evaluate local performance assessments for students
- there is a strong emphasis on multiculturality
- there is a strong emphasis on preventing learning difficulties and exclusion
- almost all teachers hold master's degrees at a minimum in both content and in education
- teachers receive training in research methods and pedagogical practice
- teachers are well trained to diagnose learning problems, and they work collaboratively to design solutions
- Finnish teachers teach only about half the school day; the other half day is spent planning, evaluating student work, honing their practice, participating in professional

development, designing curriculum, conferencing with students and parents, and collaborating with other teachers and staff.⁵⁸

Of great interest also to policymakers is that Finland spends only 5.6 percent of GDP on education, in contrast to the United States that spends 7.6 percent.⁵⁹ The difference is that Finland puts its efforts into prevention, rather than the more expensive and less successful remediation and recovery efforts that are typical in American schools for both staff and students.

How money is spent does matter. Examples of American costs that are avoided in Finland are the following:

- cost of educating teachers who then either never teach or leave within the first five years
- cost of recruiting and training new teachers that could be greatly reduced if turnover were not so high
- cost of monitoring, remediating, and, at times, firing ineffective teachers (who probably would never have been selected into the pool of candidates in a more competitive process)
- grade retention, used in America as a remedy and form of treating individual deficits and problems, but is utterly non-effective and even harmful to students and is very costly in dollars; not practiced at all in Finland
- ability grouping, another harmful practice for students, requiring more teachers and more expense
- use of external assessments and scoring in American schools at great cost; designed, administered, and scored locally in Finland
- cost of course offerings; Texas requires 26 credits for graduation (more than any other state), but high-performing countries require many fewer and teach more depth
- special education in America is compliance oriented and very expensive; Finnish concept
 for special education is more like the new Response-to-Intervention initiative in America
 and is used by about half of Finnish students at some point in their school career, with no
 long periods of testing and labeling and exclusion placements.⁶⁰

If Texas decided to focus on improving its efforts to develop, recruit, and support its teachers with the working conditions they prefer and possibly adopt even some of the Finnish changes in how teachers are prepared and how they work, not only could we save money in the long run, but we would, research suggests, have much improved schools, as evidenced by improved student learning and completion rates. Equity would likely improve, not only in funding, but also in student outcomes. We could climb out of the bottom ranks among the states in every category. And we might even come close to being similar to Lake Woebegon, where all our children are above average.

A 2003 study published by the Economic Policy Institute begins with these statements: "Teacher quality matters. In fact, it is the most important school-related factor influencing student achievement."⁶¹ The book recounts and analyzes the existing research on the teacher background characteristics that are, in fact, linked to teacher performance—and to student achievement. Rice, the author of the study, observes that "the context of teaching matters (e.g., differences in grade levels, subject areas, and student populations)." What we need, she says is "a refined understanding of how teacher attributes affect their performance across these different teaching contexts," which can then be used in "determining the range of potentially effective policy options."⁶²

From the empirical evidence that the study highlights are the following teacher characteristics that predict improved student learning:

- Teacher experience
- · Selectivity/prestige of university attended
- Advanced degrees in teaching field—secondary level
- Certification
- Coursework in subject area and pedagogy—all levels
- Content coursework most important at high school level
- Opportunities to learn the profession
- Reduced anxiety among new teachers
- Literacy or verbal abilities⁶³

The study concludes:

"There is widespread agreement now that of all the factors inside the school that affect children's learning and achievement, the most important is the teacher not standards, assessments, resources, or even the school's leadership, but the quality of the teacher." The evidence indicates that neither an extreme centralized bureaucratization nor a complete deregulation of teacher requirements is a wise approach for improving teacher quality. What holds a great deal more promise is refining the policies and practices employed to build a qualified body of teachers in elementary schools, middle schools, and high schools; for disadvantaged, special needs, and advantaged students; and for math, science, languages, English, social studies, and the arts.⁶⁴

Rice closes with this recommendation: "The research suggests that investing in teachers can make a difference in student achievement. In order to implement needed policies associated with staffing every classroom—even the most challenging ones—with high-quality teachers, substantial and targeted investments must first be made in both teacher quality and education research."⁶⁵

Hargreaves and Fullan (2012), research scholars who are internationally respected, write:

Teaching is at a crossroads: a crossroads at the top of the world. Never before have teachers, teaching, and the future of teaching had such elevated importance. There is widespread agreement now that of all the factors inside the school that affect children's learning and achievement, the most important is the teacher—not standards, assessments, resources, or even the school's leadership, but the quality of the teacher. Teachers really matter.⁶⁶

Quality teachers matter. Working conditions matter. Recruitment and retention of good teachers matter. Continuous improvement of teacher quality matters. And they all cost money, so money still matters.

ENDNOTES

^{1.} Stutz, T. (2012, May 28). Texas schools short by 15,000 teachers this year, analysis shows. Dallas Morning News. Retrieved June 3, 2012, from http://www. dallasnews.com/news/education/headlines/20120528-texas-schools-short-by-15000-teachers-this-year-analysis-shows.ece.

^{2.} Stutz, T. (2012, May 29). See note 1.

^{3.} Stutz, T. (2012, May 29). See note 1.

^{4.} Whitehurst, G. J. (2002). Research on teacher preparation and professional development. Presentation at the White House Conference on Preparing Quality Teachers, March 5, 2002. Retrieved July 6, 2010, from <u>http://ies.ed.gov/director/speeches2002/03_05/2002_03_05.asp</u>. See also research summary in Patterson, C. & Story, J. (2005). Better salaries for teachers in Texas public schools. Texas Public Policy Foundation. Retrieved August 20, 2010, from <u>http://www.texaspolicy.com/pdf/2005-11-teacherpay-rr.pdf</u>

^{5.} Whitehurst, G. J. (2002). See note 4. Patterson, C. & Story, J. (2005). See note 4.

^{6.} Jerald, C. D., Haycock, K., & Wilkins, A. (2009, November). Fighting for quality and equity, too: How state policymakers can ensure their drive to improve teacher quality doesn't just trickle down to poor and minority children. Retrieved March 22, 2010, from http://www.edtrust.org/dc/publication/fighting-for-quality-and-equality-too

^{7.} Jerald, C. D., Haycock, K., & Wilkins, A. (2009, November). See note 6.

^{8.} The Education Trust (2007). Their fair share: How Texas-sized gaps in teacher quality shortchange low-income and minority students. Washington, DC: The Education Trust.

^{9.} Hanushek, E. A. (2005, June). Why quality matters in education. Finance and Development, 42(2). Retrieved March 22, 2010, from http://www.imf/org/external/pubs/ft/fandd/2005/06/hanushek/htm. Although Hanushek insists that money does not matter in education, he does find evidence that quality teachers matter, but he does not want to pay them well. He is opposed to paying increments for master's degrees because he says his studies show they do not improve student

performance. A look at his methodology reveals that he did not differentiate what a teacher's major area of study was for the master's degree. Most teachers earn master's degrees in education to prepare them to become administrators, librarians, counselors, or just general studies. The number of master's degrees in education rose from 87,000 in 1970 to 175,000 in 2007-08. Those courses will not usually result in better teacher performance. However, studies do show that advanced degrees in science and mathematics produce greater student outcomes, so the incentive pay should likely go to teachers who major in what they teach, not in general education courses, although they could minor in education. See Sawchuk, S. (2012, July 17). States' costs skyrocket on master's degree pay for teachers. Teacher beat. Education Week. Retrieved July 17, 2012, from http://blogs.edweek.org/edweek/teacherbeat/2012/07/report_finds.html?cmp=ENL-EU-NEWS2.

- 10. Jerald, C. D., Haycock, K., & Wilkins, A. (2009, November). See note 6.
- 11. Scharrer, G. (2010, July 20). Students need great teachers. San Antonio Express-News. Retrieved July 29, 2010, from http://www.mysanantonio.com/new/local_news/students-need-great-teachers 98883739.html .
- 12. Leonhardt, D. (2010, July 27). The case for \$320,000 kindergarten teachers. The New York Times. Retrieved July 29, 2010, from http://www.nytimes. com/2010/07/28/business/economy/28leonhardt.html .
- Ferguson, R. F. (1991, Summer). Paying for public education: New evidence on how and why money matters. Harvard Journal on Legislation, 28(2), pp. 465-498. See also Darling-Hammond's comments on study at Darling-Hammond, L. (2010). The flat world and education: How America's commitment to equity will determine our future. New York City, NY: Teachers College, Columbia University, p. 105.
- 14. Delpit, L. (2012). "Multiplication is for white people" Raising expectations for other people's children, p. 9. New York City, NY: The New Press.
- 15. Delpit, L. (2012), pp. 71-72. See note 14.
- 16. Delpit, L. (2012), p. 72. See note 14.
- 17. Delpit, L. (2012), p. 73. See note 14.
- 18. Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005, March). Teachers, schools and academic achievement. Econometrica, 73(2), pp. 171-183.
- 19. Andrews, Darrell (2012, June 18). Comment posted on an online discussion group for Association for Supervision and Curriculum Development via LinkedIn. Quotation used with permission.
- 20. Delpit, L. (2012), p. 72. See note 14.
- 21. Glasser, W. (1998). Choice theory: A new psychology of personal freedom. New York City, NY: Harper Collins.
- 22. Glasser, W. (1990). The Quality School: Managing students without coercion. New York City, NY: Harper & Row.
- 23. The following sources all report on the negative effects of fear and anxiety on teaching and learning: Krashen, S. D. (2003). Explorations in language acquisition and use: The Taipei lectures. Portsmouth, NH: Heinemann. Willis, J. (2006). Research-based strategies to ignite student learning. Alexandria, VA: Association for Supervision and Curriculum Development. Csikszentmihalyi, M. (1991). Flow: The psychology of optimal experience: Steps toward enhancing the quality of life. New York City, NY: Harper and Row. Bonstingl, J. J. (1992). Schools of quality: An introduction to Total Quality Management in education. Alexandria, VA: Association for Supervision and Curriculum Development. Crawford, D. K., Bodine, R. J., & Hoglund, R. G. (1993). The school for quality learning: Managing the school and classroom the Deming way. Champaign, IL: Research Press. Maslow, A. H. (1971). The farther reaches of human nature. New York City, NY: Penguin Books. Wolfe, P. (2001). Brain matters: Translating research into classroom practice. Alexandria, VA: Association for Supervision and eucator's handbook of brain terms and cognitive processes. Thousand Oaks, CA: The Corwin Press. Doidge, N. (2007). The brain that changes itself: Stories of personal triumph from the frontiers of brain science. New York City, NY: Penguin Books. Zull, J. E. (2002). The art of changing the brain: Enriching the practice of teaching by exploring the biology of learning. Sterling, VA: Stylus Publishing. Immordino-Yang, M. H. & Faeth, M. (2010). The role of emotion and skilled intuition in learning. In D. A. Sousa, (Ed.). Mind, brain, & education: Neuroscience implications for the classroom (pp. 69-83). Bloomington, IN: Solution Tree Press. Hattie, J. (2009). Visible learning: A synthesis of over 80 meta-analyses relating to achievement. New York City, NY: Routledge.
- 24. Glasser, W. (1990). See note 22.
- 25. Delpit, L. (2012), p. 86. See note 14.
- 26. Delpit, L. (2012), p. 77. See note 14.
- 27. Rothstein, R. (2004). Class and schools: Using social, economic, and educational reform to close the black-white achievement gap. New York City, NY: Teachers College, Columbia University and Economic Policy Institute, p. 95. See also Tough, Paul (2012). How children succeed: Grit, curiosity, and the hidden power of character. Boston, MA: Houghton Mifflin Harcourt.
- 28. Rothstein, R. (2004), pp. 96-97. See note 27.
- 29. Jensen, E. (2009). Teaching with poverty in mind: What being poor does to kids' brains and what schools can do about it. Alexandria, VA: Association for Supervision and Curriculum Development, p. 14.
- 30. Jensen, E. (2009), p. 16. See note 29.
- 31. Jensen, E. (2009), p. 19. See note 29
- 32. Jensen, E. (2009), pp. 21-22. See note 29.
- 33. Ferguson, R. F. (1991). See note 13. Baker, B. (2012). Revisiting that age-old question: Does money matter in education? Washington, DC: The Albert Shanker Institute. Rebell, M. A. & Wardenski, J. J. (2004, January). Of course money matters: Why the arguments to the contrary never added up. New York City, NY: The Campaign for Fiscal Equity. Darling-Hammond, L. (2010). See note 13. Rebell, M. A. (2007, May 19). Poverty, "meaningful" educational opportunity, and the necessary role of the courts. North Carolina Law Review, 85, pp. 1481-82. Horng, E. L. (2009, September) Teacher tradeoffs: Disentangling teachers' preferences for working conditions and student demographics. American Education Research Journal, 46(3), 690-717.
- 34. Ferguson, R. F. (1991). See note 13. Rebell, M. A. (2007, May 19), pp. 1481-82. See note 33. Horng, E. L. (2009, September), pp. 690-717. See note 33.
- 35. Rebell, M. A. (2007, May 19). See note 33. Horng, E. L. (2009, September). See note 33.
- 36. Horng, E. L. (2009, September). See note 33. Hirsch, E. & Emerick, S. (2006). Teaching and learning conditions are critical to the success of teachers and the retention of teachers. Center for Teaching Quality. Retrieved on July 12, 2010, from http://www.teachingquality.org/legacy/twc-ccsd2006.pdf . Bill and Melinda Gates (2010). Primary sources: America's teachers on America's schools. Scholastic and Bill and Melinda Gates Foundation. Retrieved June 1, 2010, from http://www.scholastic. com/primarysources/download.asp .
- Whitehurst, G. J. (2002). See note 4. Guskey, T.R. & Yoon, K. S. (2009, March). What works in professional development? Phi Delta Kappan, 90(7), pp. 495-500. Hattie, J. (2009). See note 23. Hirsch, E. & Emerick, S. (2006). See note 36.
- Rebell, M. A. (2007, May 19). See note 33. Horng, E. L. (2009, September). See note 33. Berry, B., Daughtrey, A. & Wieder, A. (n.d.). A better system for schools: Developing, supporting and retaining effective teachers. Hillsborough, NC: Center for Teaching Quality. Retrieved June 4, 2010, from http://www.nwrcc. educationnorthwest.org/resource/754. Hirsh, E. & Emerick, S. (2006). See note 36. Ferguson, R. F. (1991). See note 13. Horng, E. L. (2009, September). See note 33.
- 39. Horng, E. L. (2009, September). See note 33. Berry, B., Daughtrey, A., & Wieder, A. (n.d.). See note 38. Hirsh, E. & Emerick, S. (2006). See note 36. Giroux, H. A. (2010, April 14). In defense of public school teachers in a time of crisis. Truthout. Retrieved April 14, 2010, from http://www.truthout.org/in-defense-public-school-teachers-a-time-crisis58567. Rebell, M. A. & Wardenski, J. J. (2004, January). Of course money matters: Why the arguments to the contrary never added up. The Campaign for Fiscal Equity, Inc., p. 7. Retrieved February 12, 2010, from http://www.schoolfunding.info/resource_center/research/MoneyMattersFeb2004.pdf.
- 40. Berry, B., Daughtrey, A., & Wieder, A. (n.d.). See note 38
- 41. Horng, E. L. (2009, September). See note 33.

- 42. Horng, E. L. (2009, September). See note 33.
- 43. Berry, B., Daughtrey, A., & Wieder, A. (n.d.). See note 38.
- 44. National Education Association (2011, December). Rankings and Estimates: Rankings of the States 2011 and Estimates of School Statistics 2012, p. 19. Washington, DC: National Education Association. The following studies relate to the importance of teacher salaries: Ferguson, R. F. (1991). See note 13. Berry, B., Daughtrey, A., & Wieder, A. (n.d.). See note 38. Bill and Melinda Gates Foundation (2010). See note 36. Allegretto, S., Corcoran, S., & Mishel, L. (2008, March 7). The teaching penalty: Teacher pay losing ground. Washington, DC: Economic Policy Institute. Retrieved July 11, 2010, from https://www.epi.org/publications/entry/book_teaching_penalty/. Bushaw, W. J. & Lopez, S. J. (2010, September). A time for change: The 42nd annual Phi Delta Kappa Gallup Poll on the public attitudes toward public schools. Phi Delta Kappan, 92(1), 9-14.
- 45. Combs, S. (2006,March). The cost of underpaying Texas teachers. Austin, TX: Texas Comptroller of Public Accounts. Retrieved July 21, 2010, from http://www.window.state.tx.us/specialrpt/teachersalary06/. See also Darling-Hammond, L. (2010), pp. 107-119, See note 13.
- 46. Rebell, M. A. & Wardenski, J. J. (2004, January), p.13. See note 39.
- 47. MetLife (2005). MetLife survey of the American teacher. 2005. Transitions and the role of supportive relationships: A survey of teachers, principals, and students 2004-05. New York City, NY: MetLife.
- 48. Bill and Melinda Gates Foundation (2010). See note 36.
- 49. Baker, B. (2012). See note 33.
- 50. Loeb, S., & Page, M. (2000). Examining the link between teacher wages and student outcomes: The importance of alternative labor market opportunities and non-pecuniary variation. Review of Economics and Statistics. 82(3), pp. 393-408. See also Levin, H., Belfield, C., Muennig, P., & Rouse, C. (2007, January). The costs and benefits of an excellent education for all of America's children. New York City, NY: Teachers College, Columbia University. This study also finds that raising teacher salaries would be not only the most cost effective of available strategies to cut the dropout rate, but the net economic benefit would be "2.5 times greater than the cost."
- 51. Baker, B. (2012). See note 33.
- 52. Baker, B. (2012), p. 9. See note 33.
- 53. Rebell, M. A. & Wardenski, J. J. (2004, January), p. 14. See note 39.
- 54. Darling-Hammond, L. (2010), pp. 45-49. See note 13. See also Ravitch, D. (2010). The death and life of the great American school system: How testing and choice are undermining education, pp. 188-190, 192-193. New York City, NY: Basic Books. See also Hargreaves, A. & Fullan, M. (2012). Professional capital: Transforming teaching in every school. New York City, NY: Teachers College, Columbia University, p. 6.
- 55. Darling-Hammond, L. (2010), p. 165. See note 13.
- 56. Darling-Hammond, L. (2010), p. 166. See note 13.
- 57. Darling-Hammond, L. (2010), p. 165. See note 13.
- 58. Darling-Hammond, L. (2010), pp. 170-173. See note 13. See also Sahlberg, P. (2011). Finnish lessons: What can the world learn from educational change in Finland? New York City, NY: Teachers College, Columbia University.
- 59. Sahlberg, P. (2011), p. 57. See note 58.
- 60. Sahlberg, P. (2011), pp. 57-60. See note 58. See also Hancock, L. (2011, September). Why are Finland's schools successful? The country's achievements in education have other nations during their homework. Smithsonian. Retrieved June 21, 2012, from http://www.smithsonianmag.com/people-places/Why-Are-Finlands-schools-Successful?
- 61. Rice, J. K. (2003, August). Teacher quality: Understanding the effectiveness of teacher attributes. Retrieved August 7, 2012, from <a href="http://www.epi.org/publication/books-teacher-quality-execution-nderstanding-nderst
- 62. Rice, J. K. (2003, August), p. 2. See note 61.
- 63. Rice, J. K. (2003, August), p. 2. See note 61.
- 64. Rice, J. K. (2003, August), p. 3. See note 61.
- 65. Rice, J. K. (2003, August), p. 3. See note 61.
- 66. Hargreaves, A. & Fullan, M. (2012), p

Small Class Size Matters

Just as money makes a difference if it is spent well, small classes make a difference if they are taught well—taught differently than a large class. What schools do with their resources is the important factor, not the resource itself.

Reducing class size is an expensive intervention since not only are more teachers required, but so are more classrooms, more sets of materials, more purchases of items used for instruction needed in every classroom. What we know, however, according to Baker, is that "ample research indicates that children in smaller classes achieve better outcomes, both academic and otherwise, and that class size reduction can be an effective strategy for closing racial or socio-economic achievement gaps."¹ Baker points to the Tennessee STAR study as a recent example of high-quality research. This study was very large, randomized, and over time. Not only did the publication of the results show substantial benefits of small classes, but so have follow-up studies using the same data.² Looking at the whole body of available studies, Baker concludes that "the preponderance of existing evidence suggests that the additional resources expended on class size reductions do result in positive effects."³

For example, Rebell and Wardenski (2004) also found evidence in support of smaller class sizes. They note their importance, for example, in allowing for greater personalization in instruction and that they are "directly correlated with improved student achievement—especially for poor and minority students."⁴ Their synthesis of research concludes as follows:

Meta-analysis of studies in the 1970s and 1980s found that children benefitted academically from small class sizes at all levels, especially with prolonged exposure to small class environments, and the most pronounced benefits were found in class sizes smaller than 20 students.⁵

The benefits of small classes include the following:

- Several years' exposure to small classes yields pronounced long-term benefits for students.
- Improvements in test scores remained significant five years after the small classes were disbanded.
- Strongest effects are shown for students who are exposed to small classes early.
- Students spending four years in the small classes were nearly a year ahead of their counterparts who had been in larger classes.
- Strong educational benefits of small classes on African American students, with 7 to 10 percentile points.
- Children in smaller classes produced larger gains in grades 1-3 reading and mathematics than children in larger classes.
- Smaller classes allow teachers to spend significantly more time on instruction and less time on discipline.
- California's experiment in smaller classes failed due to not having enough quality teachers to staff the additional classrooms; academic achievement did improve in the smaller classes with effective teachers.
- Smaller class size, controlling for changes in other inputs, was found to be the largest predictor of increases in student achievement in urban majority Latina/o schools.
- Children in small classes are more likely to take college entrance exams than comparable students who had not been in small classes but whose school experiences were similar after the third grade.⁶

There are, of course, studies that show no academic benefits to smaller classes. These studies, however, frequently use student-to-teacher ratios or average class sizes in a subject area, instead of actual class size in collecting data.

One unequivocal finding of the Tennessee STAR research⁷ was that placing a teacher aide in a classroom with a teacher did not improve student learning.

"Children in small classes are more likely to take college entrance exams than comparable students who had not been in small classes but whose school experiences were similar after the third grade." As Achilles puts it, "A class of 15 pupils and one teacher has a class size of 15. A class with 28 pupils and one teacher aide has a class size of 28. A class with 28 pupils and two teachers and a full-time teacher aide still has a class size of 28."

Researchers who use student-to-teacher ratios in studies about class size will make inaccurate conclusions about their data, or they ask the wrong questions about the data available to them. This problem is common among researchers who do not work closely with educators in defining the data they need for their studies and in interpreting the findings.

Texas did the right thing back in the 1980's by capping grades K-4 classrooms at 22 students. In the summer of 2011, however, when \$5.4 billion was cut from education budgets, one of the first things to go was this requirement. Rather than repeal the law that establishes the cap, the decision was made that the Texas Education Agency could provide waivers to districts that had to increase class size to balance their budgets. Therefore, nearly 8,600 classes in 1,729 schools were authorized to have larger classes in 2011-2012. There may be even more waivers in 2012-2013. Too, there were 65,000 additional students enrolled in Texas in 2011-2012, and there were no funds to hire additional teachers, so class size across the state has likely ballooned at every level, not just in K-4 classrooms.⁹

Not only will the state's large numbers of economically disadvantaged students suffer from these decisions, but teachers will suffer as well. They consistently tell administrators and researchers that small class sizes are among their most preferred working conditions because they know that students learn more in those more personalized settings.

Parents also place high value on small classes. Private and parochial schools uniformly advertise their average class size in recruitment literature because they know it is a feature that is very attractive to parents. A random sample of 38 such Texas schools in 2010 found that 56 percent of them had average class sizes under 10.¹⁰ It should not be surprising, therefore, that public school parents and teachers would also see value in smaller classes.

Large classes impose unreasonably large burdens on teachers and greatly increase the stress of their work. They reduce the possibility of student learning for all involved. They increase the possibility of discipline problems. They reduce the students' sense of belonging and connectedness. They increase dropout rates. In conclusion, Schanzenbach (2011), writing for the National Education Policy Center, states: ... class size reduction may be more effective for disadvantaged students and young students—and consequently that potential increases in class size would be particularly detrimental to these groups.¹²

Further, an August 2012 report prepared by the Council of Economic Advisors, the Domestic Policy Council, and the National Economic Council concluded that

... a detailed look at the evidence—based on well-designed randomized experiments confirms that larger class sizes have lasting negative effects: lowering high-school graduation rates, reducing the chance that students take college entrance exams like the ACT or SAT, and lowering the chance of college enrollment and completion.¹²

So, why in the world do we increase class size for the most vulnerable children?

ENDNOTES

- 1. Baker, B. (2012). Revisiting that age-old question: Does money matter in education? New York City, NY: The Albert Shanker Foundation, pp. 9-11.
- 2. Baker, B. (2012), p. 10. See note 1. See also Council of Economic Advisors, Domestic Policy Council, and National Economic Council (2012, Aug.) Investing in our future: Returning teachers to the classroom. Washington, DC: Executive Office of the President, p. 12.
- 3. Baker, B. (2012), p. 11. See note 1.
- 4. Rebell, M. A. & Wardenski, J. J. (2004, January). Of course money matters: Why the arguments to the contrary never added up. The Campaign for Fiscal Equity, Inc., p. 15. Retrieved February 12, 2010, from http://www.schoolfunding.info/resource_center/research/MoneyMattersFeb2004.pdf
- 5. Rebell, M. A. & Wardenski, J. J. (2004, January), p. 15. See note 4.

6. Rebell, M. A. & Wardenski, J. J. (2004, January), pp. 15-28. See note 4. See also Fair School Funding Coalition (n.d.). Research on benefits of smaller class sizes. Retrieved December 8, 2011, from http://fairschoolfundingcoalition.org/joomla/index.php?option=com_content&view=article&id=73<emid=82</u>. National Council of Teachers of English (1999). More than a number: Why class size matters. NCTE position on class size and teacher workload, kindergarten to college. Urbana, IL: National Council of Teachers of English. Heilig, J. V., Williams, A., & Jez, S. J. (2010). Inputs and student achievement: An analysis of Latina/o-serving urban elementary schools. Association of Mexican American Educators (AMAE) Journal. Retrieved June 17, 2012, from http://ows.edb.utexas.edu/sites/default/ files/users/jvh/Inputs_Student_Achievement.pdf</u>. Rothstein, R. (2008). Class and schools: Using social, economic, and educational reform to close the blackwhite achievement gap. New York City, NY: Teachers College, Columbia University and Economic Policy Institute, p. 126.

- 7. Finn, J. D., Gerber, S. B., Achilles, C. M., & Boyd-Zaharias, J. (2001, April). The enduring effects of small classes. Teachers College Record, 103(2), pp. 145-183. The researchers' conclusions were as follows: "both the year in which a student first enters a small class and the number of years (s)he participates in a small class are important mediators of the benefits gained... starting early and continuing in small classes for at least three years are necessary to assure long-term carryover effects. Few immediate effects of participation in a class with a full-time teacher aide, and no long-term benefits, were found" (p. 145).
- 8. Finn, J. D. (2002, March). Small classes in American schools: Research, practice, and politics. Phi Delta Kappan, p. 557.

9. Stutz, T. (2012, May 28). Texas schools short by 15,000 teachers this year, analysis shows. Dallas Morning News. Retrieved June 3, 2012, from http://www. dallasnews.com/news/education/headlines/20120528-texas-schools-short-by-15000-teachers-this-year-analysis-shows.ece?action=register .

10. Study was conducted by writer of this report. The random sample of 38 schools included at least one from each metropolitan area in Texas. Each school's website included average class size, not adult-student ratios.

- 11. Schanzenbach, D. W. (2011, June). Review of Class size: What research says and what it means for state policy. Boulder, CO: National Education Policy Center. Retrieved July 2, 2012, from http://nepc.colorado.edu/thinktank/review-class-size-brookings.
- 12. Council of Economic Advisors, Domestic Policy Council, and National Economic Council (2012, Aug.), p. 3. See no

Preschool Matters

There is little controversy in the research findings relating to the importance of early childhood education. Children's advocates, economists, demographers, sociologists, businesspeople, and educators all agree that one of the best investments that states can make is in providing quality early childhood education programs, beginning as soon after birth as possible. Among the positive outcomes, according to research, for children's participation in such programs are the following:

- Improvements in school readiness¹
- Narrowing of the achievement gap²
- Improvements in academic performance³
- Reductions in retention-in-grade rates⁴
- Reductions in dropout rates⁵
- Reductions in incarceration rates⁶
- Reductions in referrals to special education⁷
- Prevention of academic failure⁸
- Remediation of the negative effects of poverty⁹
- Increased employment and earnings when adult¹⁰
- Increased IQ¹¹
- Increased college attendance¹²
- Improved vocabulary acquisition¹³
- Improved self-esteem¹⁴

- Stimulated intellectual curiosity¹⁵
- Improved social skills¹⁶

According to economists, prekindergarten programs result in huge returns on investment—from \$3 to \$17 for every dollar invested.¹⁷ These returns are realized through greater life earnings and more taxes paid by the participants, as well as through savings in social programs and services, reduced crime, and lower incarceration rates.¹⁸

In a recent study by the RAND Corporation, they point out the imperative of early childhood education as a first and critically important step toward school readiness, especially for children living in economically disadvantaged homes:

A series of assessments for a recent nationally representative kindergarten cohort indicate that disadvantaged children enter school lagging behind their more advantaged peers in terms of the knowledge and social competencies that are widely recognized as enabling children to perform at even the most basic level. Substantial gaps are evident for disadvantaged children in measures of reading and mathematics proficiency, in prosocial behaviors and behavior problems, and in readiness to learn.¹⁹

In other words, the achievement gap was evident years before children start school, and when they start kindergarten without prerequisite knowledge and skills, the gap continues to widen over time until they are hopelessly behind, and they give up. Even small children know when they are not achieving at the same level as their peers.

Susan Neuman, Assistant Secretary of Elementary and Secondary Education during the George W. Bush administration, proposes a research-based solution including seven "essential principles":

- Actively target the neediest children.
- Begin early in children's lives.
- Emphasize coordinated services, particularly for children whose families present multiple risks.
- Focus on boosting academic achievement through compensatory high-quality instruction.

"Texas has a long way to go in providing the kind of research-based quality preschool programs that are needed for the more than 60 percent of Texas children who are economically disadvantaged, plus other groups of at-risk children."

- Deliver instruction by trained professionals, not by aides or volunteers.
- Acknowledge that intensity matters, defending against any dilution of program quality as a waste of public resources.
- Always hold themselves accountable for results and for children's achievements.²⁰

Neuman devotes an entire chapter to the findings of neuroscience research as it relates to how we learn and how we remember, especially in the earliest years of life. The poverty of experiences and lack of opportunities to learn for many economically disadvantaged children cause a large part of the achievement gaps that exist in kindergarten classrooms. Preschool education can do much to reduce those gaps or even eliminate them. A Texas researcher, Tucker-Drob (2012) verified that finding: "Preschools may reduce inequalities in early academic achievement by providing children from disadvantaged families with higher-quality learning environments than they would otherwise receive."²¹

Texas law allows school districts to serve both 3- and 4-year-olds in prekindergarten, but districts are required to serve only 4-year-olds. According to the Center for Public Policy Priorities (CPPP), prekindergarten enrollment increased from 123,927 in 2000-2001 to 200,181 in 2010-2011.²² Enrollment dropped off significantly in 2011-2012, however, due to the elimination of the preschool extension grants that funded full-day programs and added more three-year-old classrooms.

Texas has a long way to go in providing the kind of research-based quality preschool programs that are needed for the more than 60 percent of Texas children who are economically disadvantaged, plus other groups of at-risk children (i.e., children with disabilities, foster children, etc.). Tucker-Drob found that "Lower socioeconomic status was associated with lower rates of preschool enrollment, which suggests that the very children who would benefit most from preschool are the least likely to be enrolled in them."²³ Hispanic children are typically under-enrolled,²⁴ due, it is thought, to lack of information about the available program and cultural and language differences. Since the children of middle-class and wealthy parents typically do attend preschool, the gaps grow even wider if economically

disadvantaged children have no access or have access only to a low-quality program.

The RAND Corporation published a comprehensive review of research on early childhood education in 2005, along with their conclusions and recommendations for policymakers and private funders. They follow:

- The period from birth to age 5 is one of opportunity and vulnerability for healthy physical, emotional, social, and cognitive development.
- A sizable fraction of children face risks that may limit their development in the years before school entry.
- Variations in early childhood experiences are manifested in disparities in school readiness, and these gaps often persist.
- Early childhood interventions are designed to counteract various stressors in early childhood and promote healthy development.
- Rigorous evaluations of early childhood interventions can help us understand what outcomes they may improve.
- Scientific research has demonstrated that early childhood interventions can improve the lives of participating children and families.
- A very limited evidence base points to several program features that may be associated with better outcomes for children: better-trained caregivers, smaller child-to-staff ratios, and greater intensity of services.
- The favorable effects of early childhood programs can translate into dollar benefits for the government, participants, and other members of society.
- Economic analyses of several early childhood interventions demonstrate that effective programs can repay the initial investment with savings to government and benefits to society down the road.

"The new mission of schools is to prepare students to work at jobs that do not yet exist, creating ideas and solutions for products and problems that have not yet been identified, using technologies that have not yet been invented."

--Linda Darling-Hammond, 2010

The economic benefits of early childhood interventions are likely to be greater for programs that effectively serve targeted, disadvantaged children than for programs that serve lower-risk children.²⁵

The RAND researchers concluded that "for decision makers considering investments in early childhood interventions, our findings indicate that a body of sound research exists that can guide resource allocation decisions." They continue: "This evidence sheds lights on the types of programs that have been demonstrated to be effective, the features associated with effective programs, and the potential for returns to society that exceed the resources invested in program delivery."²⁶

The National Institute for Early Education Research (NIEER) publishes an annual report on the status of states' preschool programs. Their 2011 report bemoans the decrease of almost \$60 million in 2010-2011 for pre-k programs across the country, despite the use of \$127 million in funds from the American Recovery and Reinvestment Act (ARRA).²⁷ This was the second consecutive year of decreased funding, ending a decade of expansion of these important programs.

The NIEER study ranked the states (11 states had no ranking since they do not have state preschool programs) on five indicators of quality:

- Texas ranked #8 among the states in "access for 4-year-olds."
- Texas ranked #12 in "access for 3-year-olds."
- In "resource rank based on state spending," Texas ranked only #22.
- In "resource rank based on all reported spending," Texas ranked #27 among the 39 states with programs.
- Texas achieved only 4 of the Quality Standards (maximum score is 10).²⁸

Of concern is that although Texas provided in 2010-11 a competitive access (in comparison to other states) to pre-k programs, especially for 4-year-olds, it is also clear that the Texas program lacks a great deal in quality. There are ten research-based Quality Standards for state preschool programs that have been established by NIEER. These ten indicators are highly likely to predict successful programs in terms of improving student learning and school readiness. Georgia is the only state, thus far, to achieve all ten. Texas has met the following four:

Comprehensive early learning standards

- Teacher has a B.A. degree
- Teacher has specialized training in pre-k
- Teacher is engaged in at least 15 hours yearly in inservice³¹

Yet to be addressed in Texas are the following:

- Assistant teacher has Child Development Associate degree or equivalent
- Class size at 20 or lower
- Staff-child ratio at 1:10 or better
- Vision, hearing, health, and one support service
- At least one meal
- Site visits to demonstrate ongoing adherence to state program standards³²

The Texas preschool programs began in 1985 as part of a massive school reform and school finance initiative with bipartisan support. Basic funding was provided, not for universal access, but for certain eligible children: qualifying for free or reduced price lunch, limited English proficiency, homelessness or unstable housing, participation in foster care, or a child with a parent on active military duty or who has been injured or killed on duty.³⁵ Districts may allow other children to attend if they pay tuition. Four-year-olds have to be served, and three-year-olds may be served.

The establishment of the competitive Prekindergarten Expansion Grant Program made it possible to expand the program to full day and to serve additional students. The purpose of the grants was to prepare students "to enter kindergarten at or above grade level" and they prioritized districts with low third-grade reading scores.³⁶

Early childhood educators in Texas for years have been concerned that the 1:22 class size expectation for grades K-4 did not apply to prekindergarten, a policy that makes no sense, especially if one has ever cared for young children, much less tried to teach them. But even 22 four-year-old children are too many for one teacher, especially if there is not another adult in the room.

NIEER also provides information on state spending for prekindergarten programs. Texas ranked 22 (in the bottom half) among the 39 states with programs with an expenditure in 2010-

2011 of only \$3,761 per child, \$138 per child less than in 2009-2010.³³ The numbers will be even more depressing in the 2012 and 2013 reports, given the recent budget cuts specifically to these programs.

To meet all ten of the NIEER Quality Standards, Texas would need to spend \$7,047 per child rather than the \$3,761 per child spent in 2010-2011 or about \$3,286 additional for each child.³⁴

An analysis of 2011 TAKS data from the Texas Education Agency by the office of Representative Mike Villarreal indicates that children who attended prekindergarten passed the grade 3 TAKS reading and mathematics test in greater percentages than children who did not.³⁷ Villarreal's press release on the study included the following:

While 17 percent of low-income kids without pre-K failed the reading half of the TAKS, the failure rate for those with pre-K was 12 percent—pulling them closer, at least, to the five percent failure rate for kids from higher-income families. We now have timely evidence that pre-K narrows the achievement gap in Texas and that the legislature was foolish to eliminate the pre-K expansion grants.³⁸

In another study conducted by a Texas group, Children At Risk, preliminary results indicate the following: "In total, school districts cut 1,132 pre-kindergarten teaching positions by limiting student enrollment, moving from full to half-day curriculum, and/or increasing class size."³⁹ They also reported that in El Paso, a property-poor district with high percentages of low-income families, the prekindergarten teaching staff was cut 93 percent. The Children At Risk spokesperson said, "One thing that we'll see in terms of education is that the research is very clear on pre-K, so when you see a place like El Paso eliminate all those pre-K positions, they're going to see some long-term repercussions there."⁴⁰

Heinauer reported central Texas cuts to prekindergarten programs for 2011-2012, and quoted Laura Koenig, the director of school readiness for E3 Alliance, an organization that supports improved education in Central Texas. Their study of the 10 school districts that make up the Austin Community College service area found "when the readiness of children from low-income families who attended a pre-K program was compared with the readiness of kids not from low-income families who didn't attend pre-K, the groups were statistically similar."⁴¹

Austin ISD's study of third-graders "found that those who attended pre-K did better on state tests than those who were eligible but did not attend. District researchers also saw greater gains," reports Heinauer, "in preliteracy for kids in full-day compared with half-day programs."⁴²

Texas is a state where 60 percent of its children are eligible for free/reduced meals, so one would think, given the very strong research consensus, that a high priority would be adequate and equitable funding for preschool education, an initiative that could save us billions of dollars over time if we do it right. But our state's leaders in their eagerness to cut billions from the education budget in 2011 for the 2011-13 biennium made the decision to eliminate the funding for full-day prekindergarten. Local districts had to make even more cuts to the program to balance their budgets.

Money still matters if we are to do what is right for the youngest and most vulnerable Texans. A "good" and "great" Texas would fully fund prekindergarten for all eligible three- and four-yearolds, and we would fund a high-quality program to ensure the maximum benefits to the children ensued. Prekindergarten is a powerful intervention to ensure academic success and social mobility and to build a stronger Texas—and it is an investment with proven economic returns to the economy.

ENDNOTES

- Center for Public Policy Priorities (2010). The state of Texas children 2009-2010. Austin, TX: Center for Public Policy Priorities. Heckman, J. J. & Masterov, D. V. (2007, January). The productivity argument for investing in young children. Review of Agricultural Economics, 29(3), pp. 446-493. Schott Foundation for Public Education (2008). Lost opportunity: A 50-state report on the opportunity to learn in America. Retrieved May 30, 2010, from http://www.otlstatereport.org/. Berliner, D. C. (2009, March). Poverty and potential: Out-of-school factors and school success. Education Policy Research Unit. Tempe, AZ: Arizona State University. Retrieved March 22, 2010, from http://www.otlstatereport.org/. Berliner, D. C. (2009, March). Poverty and potential: Out-of-school factors and school success. Education Policy Research Unit. Tempe, AZ: Arizona State University. Retrieved March 22, 2010, from http://www.ascd.org/apublication/poverty-and-potential. Hodgkinson, H. (2006, January). The whole child in a fractured world. Retrieved March 9, 2010, from http://www.ascd.org/apublication/poverty-and-potential. Hodgkinson, H. (2006, January). The whole child in a fractured world. Retrieved March 9, 2010, from http://www.ascd.org/apublication/poverty-and-potential. Hodgkinson, H. (2006, January). The whole child in a fractured world. Retrieved March 9, 2010, from http://www.ascd.org/apublication/poverty-and-potential. Hodgkinson, H. (2006, January). The whole child in a fractured world. Retrieved March 9, 2010, from http://www.ascd.org/apublication/poverty-and-potent
- Center for Public Policy Priorities (2010). See note 1. Belfield, C. R. (2007). The promise of early childhood education interventions. In C. R. Belfield & H. M. Levin (Eds.), The price we pay: Economic and social consequences of inadequate education (pp. 200-224). Washington, DC: Brookings Institution Press. Educational Testing Service (ETS) (2005, Winter). Addressing achievement gaps: Progress and prospects for minority and socioeconomically disadvantaged students and Englishlanguage learners. Policy Notes, 13(1). Policy Evaluation and Research Center. Retrieved July 5, 2010, from http://www.ets.org/Media/Research/pdf/PICPH131/pdf.

Calman, L. J. & Tarr-Whelan, L. (2005, April). Early childhood education for all: A wise investment. New York, NY: Legal Momentum's Family Initiative and the MIT Workplace Center. Retrieved July 10, 2010, from <u>http://web.mit.edu/workplacecenter/docs/Full%20Report.pdf</u>. Rebell, M. A. & Wardenski, J. J. (2004, January). Of course money matters: Why the arguments to the contrary never added up. New York City, NY: The Campaign for Fiscal Equity, Inc. Crosnoe, R., Leventhal, T., Wirth, R. J., Pierce, K. M., & Pianta, R. C. (2010, May 13). See note 1. Educational Testing Service (ETS) (2005, Winter). See note 2. Hodgkinson, H. (2006, January). See note 1. Hart, B. & Risley, T. R. (1995). See note 1. Lipina, S. & Colombo, J. (2009). Poverty and brain development during childhood: An approach from cognitive psychology and neuroscience. Washington, DC: American Psychological Association.

^{4.} Center for Public Policy Priorities (2010). See note 1. Rolnick, A. J. & Grunewald, R. (2007, January 4). Early intervention on a large scale. Education Week. Retrieved July 10, 2010, from http://minneapolisfed.org/publications_papers/studies/earlychild/early_intervention.cfm. Lipina, S. & Colombo, J. (2009). See note 3.

^{5.} Heckman, J. J. & Masterov, D. V. (2007, January). See note 1. Rolnick, A. J. & Grunewald, R. (2007, June 4). See note 4. Wilder, T., Allgood, W., & Rothstein, R. (2009, November 10). Narrowing the achievement gap for low-income children: A 19-year life cycle approach. Paper prepared for the 2008 Equity Symposium of the Campaign for Educational Equity, "Comprehensive Education Equity: Overcoming the Socioeconomic Barriers to School Success," Teachers College, Columbia University, Nov. 17-18, 2008. Retrieved December 14, 2009, from http://www.epi.org/publications/enry/narrowing the achievement gap for low income children/. Lipina, S. & Colombo, J. (2009). See note 3.

^{6.} Heckman, J. J. & Masterov, D. V. (2007, January). See note 1. Calman, L. J. & Tarr-Whelan, L. (2005, April). See note 3. Wilder, T., Allgood, W., & Rothstein, R. (2008, November 10). See 5.

- 7 Center for Public Policy Priorities (2010). See note 1. Rolnick, A. J. & Grunewald, R. (2007, January 4). See note 4. Wilder, T., Allgood, W., & Rothstein, R. (2008, November 10). See note 5. Educational Testing Service (ETS) (2005, Winter). See note 2. Lipina, S. & Colombo, J. (2009). See note 3. Rebell, M. A. & Wardenski, J. J. (2004, January). See note 3.
- Hart, B. & Risley, T. R. (1995). See note 1. Heckman, J. J. & Masterov, D. V. (2007, January). See note 1. Calman, L. J. & Tarr-Whelan, L. (2005, April). See note 3. 8 9 Hart, B. & Risley, T. R. (1995). See note 1. Belfield, C. R. (2007). See note 2. Kilburn, M. R. & Karoly, L. A. (2008). The economics of early childhood policy: What the dismal science has to say about investing in children. Santa Monica, CA: The RAND Corporation. Retrieved July 10, 2010, from http://www.rand.org/pubs/ occasional papers/OP227/. Rolnick, A. J. & Grunewald, R. (2007, January 4). See note 4. Berliner, D. C. (2009, March). See note 1. Schott Foundation for Public Education (2008). See note 1. Crosnoe, R., Levanthal, T., Wirth, R. J., Pierce, K. M., & Pianta, R. C. (2010, May 13). See note 1.
- Belfield, C. R. (2007). See note 2. Rolnick, A. J., Grunewald, R. (2007, January 4). See note 4. Calman, L. J. & Tarr-Whelan, L. (2005, April). See note 3. Wilder, T., 10 Allgood, W., & Rothstein, R. (2008, November 10). See note 5. Educational Testing Service (ETS) (2005, Winter). See note 2. Lipina, S. & Colombo, J. (2009). See note 3
- Wilder, T., Allgood, W., & Rothstein, R. (2008, November 10). See note 5. 11.
- Belfield, C. R. (2007). See note 2. Wilder, T., Allgood, W., & Rothstein, R. (2008, November 10). See note 5. 12
- 13. Rolnick, A. J. & Grunewald, R. (2007, June 4). See note 4. Hart, B. & Risley, T. R. (1995). See note 1.
- Hart, B. & Risley, T. R. (1995). See note 1. Christensen, C. M., Horn, M. B., & Johnson, C. W. (2008). Disrupting class: How disruptive innovation will change the way the 14. world learns. New York City, NY: McGraw Hill. Heckman, J. J. & Masterov, D. V. (2007, January). See note 1.
- Heckman, J. J. & Masterov, D. V. (2007, January). See note 1.
- Kilburn, M. R. & Karoly, L. A. (2008). See note 9. Heckman, J. J. & Masterov, D. V. (2007, January). See note 1. Rolnick, A. J. & Grunewald, R. (2007, June 4). See note 16. 4. Calman, L. J. & Tarr-Whelan, L. (2005, April). See note 3.
- Rolnick, A. J. & Grunewald, R. (2007, June 4). See note 4. See also Rand Corporation (2005). Proven benefits of early childhood interventions. Research Brief. Santa 17. Monica, CA: RAND Corporation, p. 2.
- Wilder, T., Allgood, W., & Rothstein, R. (2008, November 10). See note 5. Rebell, M. A. & Wardenski, J. J. (2004, January). See note 3. Crosnoe, R., Levanthal, T., 18. Wirth, R. J., Pierce, K. M., & Pianta, R. C. (2010, May 13), See note 1, Rolnick, A. J. & Grunewald, R. (2007, June 4), See note 4, Calman, L. J. & Tarr-Whelan, L. (2005, April). See note 3. Educational Testing Service (ETS) (2005, Winter). See note 2. Lazarin, M. (2008, September 15). An education agenda for Latino students. Center for American Progress. Retrieved March 29, 2010, from http://www.americanprogress.org/issues/2008/09/latino_education.html . Hart, B. & Risley, T. R. (1995). See note 1. Christensen, C. M., Horn, M. B., & Johnson, C. W. (2008). See note 14. Barnett, W. S., Schulman, K., & Shore, R. (2004, December). Class size: What's the best fit? Preschool Policy Matters, 9. National Institute for Early Education Research. Retrieved July 21, 2010, from http://nieer.org/resources/policybriefs/9.pdf 19 RAND Corporation (2005), Children at risk: Consequences for school readiness and beyond, Research Brief, Santa Monica, CA: RAND Corporation,
- Neuman, S. B. (2009). Changing the odds for children at risk: Seven essential principles of educational programs that break the cycle of poverty. New York City, NY: Teachers 20. College, Columbia University, p. x.
- Tucker-Drob, E. M. (2012, February 24). Preschools reduce early academic-achievement gaps. Psychological Science, 23(3), pp. 310-319. 21
- Center for Public Policy Priorities (CPPP) (2012). Choices: The Texas We Create. State of Texas Children 2012. Texas KIDS COUNT Annual Data Book. Austin, TX: 22. Center for Public Policy Priorities.
- Tucker, Drob, E. M. (2012, February 24). See note 21. 23.
- Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2011). The state of preschool 2011: State Preschool Yearbook, p. 9. Pew Charitable Trusts and Rutgers 24 Graduate School of Education. Retrieved July 16, 2012, from http://nieer.org/sites/nieer/files/2011yearbook.pdf.
- 25. Karoly, L. A., Kilburn, M. R., & Cannon, J. S. (2005). Early childhood interventions: Proven results, future promise. New York City, NY: RAND Corporation. 26 Karoly, L. A., Kilburn, M. R., & Cannon, J. S. (2005), p. xxviii, See note 25.
- Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2011), p. 4. See note 24. 27. Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2011), p. 7. See note 24. 28.
- 29.
- Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2011), p. 10. See note 24. 30. Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2011), p. 14. See note 24.
- 31 Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2011), p. 17. See note 24.
- Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2011). See note 31. 32.
- Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2011), p. 18. See note 24. 33.
- 34. Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2011), p. 19. See note 24.
- 35. Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2011), p. 132. See note 24.
- 36 Barnett, W. S., Carolan, M. E., Fitzgerald, J., & Squires, J. H. (2011), p. 132. See note 24.
- 37. Michels, P. (2012, March 19). \$5.4 billion spending cut already taking a toll on schools. The Texas Observer, p. 2. Retrieved June 4, 2012, from http://texasobserver. org/snakeoil/54-billion-spending-cut-already-taking-a-toll-on-schools.
- 38. Michels, P. (2012, March 19). See note 37.
- 39. Michels, P. (2012, March 19). See note 37.
- Michels, P. (2012, March 19). See note 37. 40
- Heinauer, L. (2012, July 2). Littlest scholars miss out as pre-K cut in many districts. Austin American-Statesman. Retrieved August 6, 2012, from http://www. 41. statesman.com/news/education/littlest-scholars-miss-out-as-pre-k-cut-2408518.html?printArticle=y, p. 1.
- Heinauer, L. (2012, July 2), p. 2. See note 41. 42.

Interventions for Struggling Students Matter

How money is spent matters greatly as to whether students are successful academically, especially for students who struggle to learn. Without the necessary resources, the state's most vulnerable children lack the opportunity to fulfill their potential. An adequate and equitable school finance system for Texas would eliminate the funding disparities between and among districts, and it would also narrow or eliminate the opportunity-to-learn gaps and facilitate social mobility for Texas children, a large majority of whom are currently economically disadvantaged.

Opportunity-to-Learn (OTL) Standards and Response-to-Intervention (RTI)

Educators first began to talk about "opportunity to learn" in the late 1980's and early 1990's, and the conversation became national when President George H. W. Bush proposed the Goals 2000: Educate America Act. The statute draft defined opportunity-to-learn standards as

... the criteria for, and the basis of, assessing the sufficiency or quality of the resources, practices, and conditions necessary at each level of the education system ... to provide all students with the opportunity to learn the materials in voluntary national content standards or State content standards.¹

The prescient among educators and policymakers knew student performance and curriculum content standards, along with assessments and formal accountability systems, were necessary, but insufficient, to ensure American students make the dramatic gains that the knowledge-based global economy and citizenship in a technologically advanced age require. What was needed

were assurances of financial support so that each child could be educated well. Opportunity-to-learn (OTL) standards were generally defined as

... a set of conditions that schools, districts, and states must meet in order to assure that students are being offered an equal opportunity to meet the expectations embodied in performance standards.²

In other words, adequate learning resources and safety nets for students were absolute requirements for success in closing the achievement gap and in ensuring a world-class education for all. Opportunity-to-learn standards were the accountability system plan for policymakers.

In fact, as the definition for OTL has evolved, the opportunity to learn includes precisely the same research-based areas as we do in this publication: quality teachers, small class sizes, preschool education, interventions for struggling learners, and challenging curriculum and resources. These five areas also show up as among the most important in survey research among educators on the most desired working conditions. Educators simply cannot be accountable for the results policymakers specify unless those policymakers are also held accountable for provision of equitable and adequate funding for full implementation of the necessary opportunities to learn.

A section of the most recent reauthorization of the Individuals with Disability Education Act (IDEA)³ provides us with one vital step toward OTL standards, albeit only a requirement, not the resources for implementation. One section establishes what is called Response to Intervention (RTI), a new method of determining the eligibility of children for special education. Schools must identify at the earliest possible time when a child is falling behind and then provide appropriate interventions and ongoing assessments to measure progress at three or more levels of intensity to correct the learning problem.

Only if all these interventions fail may a child be referred to special education services. Educators generally believe RTI is exactly what a school should do. Implementing it with integrity, however, would cost even a small elementary school significantly more money than is currently in the system for planning, professional development, purchase or development of formative assessments, meeting time to analyze data, time for parent involvement, salaries and benefits for intervention teachers, purchase or development of appropriate interventions, materials, technology, and meeting times to identify children and make assignments. The federal government did not appropriate one additional dollar for

all these new tasks, so RTI, where implemented, is rarely done well, but it could be a powerful solution to the poor performance of literally millions of Texas children.⁴

While additional funds are needed for implementation, the long-range savings to taxpayers are potentially enormous. The children served in an RTI implementation are precisely those who are currently failing state assessments, retained-in-grade, labeled as "at-risk" or for "special education," and then eventually dropping out of school—with all the incumbent costs to society in their lost wages and paying only few or no taxes, plus their health costs, criminal justice, incarceration, and on and on.

Texas should use its best minds to create our own version of RTI. We could take the following steps and more to make the program cost-effective and highly successful in preventing academic failure:

- Understand that almost all children needing RTI services are either children who are
 economically disadvantaged, who are not yet proficient in English, and/or who have
 some kind of learning disability. The interventions that are effective for these populations
 are developmentally basically the same; it is just a difference in emphasis of the strategies
 to meet individual needs. Therefore, the monies currently fragmented into different
 programs for them from federal, state, and local sources could be consolidated and used
 more efficiently.
- A high priority would be providing all teachers with high-quality professional development in what is now known from neuroscience, cognitive psychology, and education⁵ about how we learn and how we remember. These three disciplines are coming together to inform education practice in powerful ways, yet few teachers have access to the information or the materials required.
- We should shift our focus (and huge expenditures) from summative, high-stakes
 assessments which rarely benefit any student, if at all, to a focus on formative assessment,
 or continuous progress monitoring, where data are used to drive instructional decisions
 for each child on an everyday basis.⁶ Teachers will require training in how to develop,
 administer, and use the data, and they will need good technology to access it quickly in
 meaningful formats.
- We should look to our Finnish cousins for their concept of RTI. They recognized that retentionin-grade was one of the biggest costs to education—and it is rarely, if ever, effective in improving student learning. So, they eliminated it from their schools and implemented instead

a system they call special education, but its description sounds more like a well-implemented RTI. Sahlberg (2011) says that "Personalized learning and differentiation became basic principles in organizing schooling for students across society." He said educators made "the assumption that all students can achieve common educational goals if learning is organized according to each student's characteristics and needs."⁷

- Shalberg also notes that "minimizing grade repetition has been possible primarily because special education has become an integral part of each and every school in Finland. Every child has the right to get personalized support provided early on by trained professionals as part of normal schooling."⁸ He explains that the emphasis on prevention of failure, rather than "repair" of failures, results in about one-third to onehalf of Finnish children receiving some form of special education during their school years, but most for only short periods of time.⁹
- A major cost of American special education is compliance, and, indeed, the program is compliance-driven, not instructionally driven. A far less formal system of RTI without the mountains of paperwork in current special education could save billions of dollars—and billions and billions more since the "least restrictive environment"¹⁰ would be the regular classroom for almost all but the most severely disabled.
- RTI could more than pay for itself through combining all the special programs for categories of children who struggle to learn, including universal preschool (beginning at age 3), test-preparation and remediation courses, summer programs, retention-in-grade, tutoring, supplemental services under NCLB, etc. and through the avoidance of formal special education placement for all except the most disabled. Sahlberg notes that in Finland the percentage of students needing special education under their system drops off dramatically as students progress through the system, while in countries such as the United States special education and other remedial interventions increase as the students move up, even as huge percentages give up and drop out.¹¹

There is now a formal organization, National Opportunity to Learn Campaign, which is funded by the Schott Foundation for Public Education.¹² This organization published a report card in 2010 on how each state provides students adequate and equitable access to opportunities to learn. Texas policies earned a rating of 43rd among the states. They noted that unless Texas takes quick and effective steps to close achievement gaps, it would take more than 30 years to close the gaps in grade 4 reading and more than 50 years to do so in grade 4 mathematics. The eighth grade report was even worse. They predicted, given current improvement rates, it would take 80 years to close achievement gaps in reading and more than 30 in mathematics.

Neuroscience, Cognitive Science, and Education Research

We are seeing the birth of a new discipline in recent years as neuroscientists, cognitive psychologists, and educators collaborate in research studies on how the brain learns and remembers—and how poverty affects the development of children's brains. While there is much that we still don't know, what is now known is very exciting and promising—especially in the area of preventing academic failure by providing appropriate interventions for students who struggle to learn. Some students have learning disabilities; some are not yet proficient in English; and the vast majority are economically disadvantaged. Some students may be all three.

This new knowledge is driving the development now of both teacher-designed and commercial interventions for struggling learners that, if implemented appropriately, can greatly accelerate learning of those who are behind and make it possible for them to function successfully in the regular classroom. Jensen's review of the research literature leads him to recommend that school interventions focus on one or more of the neurocognitive abilities, including the following:

- the ability and motivation to defer gratification and make a sustained effort to meet longterm goals;
- auditory, visual, and tactile processing skills (to develop fluency, as well as higher-order thinking skills);
- attentional skills that enable the student to engage, focus, and disengage as needed;
- short-term and working memory capacity;
- sequencing skills (knowing the order of a process); and
- a champion's mind-set and confidence.¹³

These are the core or foundational skills that, too frequently, schools assume are inherent or that children come to school with, and they are rarely overtly taught either in the classroom or in remedial tutoring programs, except to some extent in special education classrooms. They are the true

prerequisites for learning, so if their absence is ignored, the school's re-teaching, test preparation, and remedial programs are failures. Jensen notes that

These skills form the foundation for school success and can give students the capacity to override the adverse risk factors of poverty. These are not simple study skills; they enable students to

focus on, capture, process, evaluate, prioritize, manipulate, and apply or present information in a meaningful way.¹⁴

These same strategies can help develop the brain of an economically disadvantaged child, a child learning to master English at the same time he or she is learning content, and a child with learning disabilities. They strengthen the neural pathways in the brain, making learning and recall possible and more efficient. The sooner they are provided, the better. Therefore, preschool programs starting at the earliest possible date in a child's life are imperative first interventions.

There may need to be subsequent interventions as students hit the wall due to not having developed prerequisite knowledge and skill. For example, we now know students fail algebra in large part due to a lack of understanding of fraction concepts and to a lack of fact fluency. Students who do not know fractions typically never learned the concept of long-division, although they may have memorized the algorithm.¹⁵ If algebra remediation includes just repeating what is taught in algebra, the student is not likely to benefit. The intervention must go back to fractions—or perhaps to long division, before the student can move forward. Development of fact fluency in both speed and accuracy of recall is critical for success in all higher-level mathematics. Similarly, students do not learn to read without phonemic awareness or without fluency (accuracy and speed) in decoding. Lessons focused on comprehension also miss the point. Without phonemic awareness, children cannot decode, and without fluency, they use all their working memory trying to decode, leaving nothing available for comprehension. Vocabulary is also prerequisite knowledge for comprehension.

Money matters in implementing such interventions since few teachers will have the knowledge and skills to develop and/or implement them without professional development and the necessary time, materials, technology, and other resources required for success. One of the many tragedies of the 2011-2013 budget cuts to education on top of an already inadequate and inequitable finance system was that many, many schools had to eliminate their interventions for struggling students. They had the expertise, the programs, the materials, and the technology, but they could not afford the teachers.

Accelerating Student Learning

Since so many children are far behind their peers developmentally, even at age 3, educators must identify and employ strategies that accelerate learning. Otherwise, struggling learners can never catch up enough to become competitive, and the achievement gaps will never close. Students who struggle to learn typically gain no more than half a year in a year of instruction since they
lack the prerequisite knowledge and skills to learn much of what they are exposed to. Without intervention, then, the child who is two years behind at age 3 may be five years behind by the end of grade 5. Research-based interventions can turn that around. There is ample evidence that given the right conditions, struggling learners can gain two or more years in one year of instruction. That is how achievement gaps are narrowed and how real opportunities to learn are realized.

Figure 6 illustrates what happens when a child is one year behind his or her peers at age 3 and who receives no interventions to address his or her needs. By the beginning of grade 5 that child is performing at about the kindergarten level, still unable to read fluently or to do simple arithmetic.

Even though it is not uncommon for an intervention to accelerate learning by two or more years in one year, let's assume the child portrayed in Figure 6 started a prekindergarten program at age 3 (performing like a two-year-old) and gained one and one-half years per year in that program until reaching grade-level performance. At the beginning of prekindergarten (age 4), the child would perform at age 3.5. He is still lagging behind an average peer since average performance would be 4.0. However, by the beginning of kindergarten, the struggling learner would be at grade level and the achievement gap should be closed. The intervention brings the struggling learner to grade-level performance in only two years.

Each year intervention is delayed, the longer it takes to bring a child to grade-level performance. It is not uncommon, for example, for a child to enter kindergarten performing like a three-year-old. Figure 7 tracks the struggling learner's performance age over time without an intervention (gaining only half a



FIGURE 6:

Consequences of Absence of Interventions and Results of Effective Interventions year in one year), compared to the trajectory of an average student who enters kindergarten performing like a five-year-old, and with an accelerated learning student receiving an intervention that will produce one and one-half year of growth in one year.

If we wait to begin an intervention in kindergarten, with the student's performance age being two years behind, it will take four years to bring him or her to grade level, and the child will have likely failed the grade 3 assessments.

Failure to provide an appropriate kindergarten intervention for the struggling learner means by the beginning of grade 4, that student will be performing like a beginning kindergarten student. When he or she takes the third-grade assessments, the performance age will be only mid-year pre-kindergarten—so why students fail is clear. A student who began kindergarten two years behind peers is by the beginning of fourth grade four years behind peers. This child will likely never pass an assessment and is on track full-speed to becoming a dropout.

The power of accelerating interventions is also evident in Figure 7. The student who is two years behind peers in kindergarten is on grade-level by the beginning of grade 4. This student may have failed the grade 3 assessments, but he or she should be able to perform well on the grade 4 assessments. This graph also explains why schools with high percentages of struggling learners cannot be expected to produce high scores quickly—especially for older students. It takes time for struggling learners to catch up.



FIGURE 7:

Three Kindergarten Scenarios

Due to inadequate and inequitable funding, some schools can provide no specific interventions until after children fail the grade 3 assessments. Figure 8 (on page 72) shows what happens to each of the three kinds of students—the struggler, the average student, and the student in an accelerated intervention. At the beginning of grade 4, the struggling learner and the student just beginning an accelerated intervention are performing like beginning kindergarten students academically. They have been gaining only one-half year for each year of instruction since they entered school at kindergarten.

Even growing one and one-half years for every year of instruction, the student in the accelerated program will require nine years to be at grade-level (at the beginning of grade 12). The student will have failed the assessments every year, most likely, and may or may not be prepared to pass the exit-level assessment—and certainly not the end-of-course assessments now required with STAARs. It is highly unlikely he or she will have remained in school during all those years of repeated failure, probable retentions in grade, and the humiliation that accompanies failing at school.

Figure 8 also indicates the escalating expense of remediation when it is delayed. It costs more than twice as much than beginning at school entry in kindergarten and more than four times as much beginning at prekindergarten—age 3, and its likelihood of success is much lower since it takes so much time. Also, because it is difficult for students to endure that many years of remediation, he or she is likely to give up and just drop out.

The struggling student who started kindergarten two years behind his or her peers in performance is performing like a second-grader by the beginning of grade 9, if there has been no meaningful intervention. We hear all the time about freshmen in high school who read at the second-grade level, and this situation is what causes that problem. Many times the struggling student is referred to special education somewhere along the way, which is dramatically more expensive than a regular education intervention. Frequently, that struggling student is left to fend for him- or herself and simply drops out of school or makes up his or her mind to drop out as soon as possible. Appropriate interventions must start early, certainly no later than age 3, if struggling learners are to have a chance for academic success, in almost all cases.

Money matters. Policy matters. Expertise in delivering effective interventions matters. Yet state leaders in making their budget cuts for 2011-2013 eliminated extremely valuable prekindergarten programs and made it almost impossible for schools to deliver appropriate and adequate interventions for students due to diminished numbers of teachers. Preschool and in-school interventions are two of the several strategies that Rothstein found were essential in closing the

gap since most of that gap occurs before children start school, during out-of-school hours, and during summers (see Chapter II: Why Money Still Matters).

Features of Effective Interventions

Schools now have access to evidence-based information on what constitutes an effective intervention for their struggling learners. A wealth of new research studies find that effective interventions include the following features, all of which contribute to acceleration of learning:

- focus on critical content, including vocabulary development across the curriculum¹⁶
- individualization/personalization of curriculum¹⁷
- use of multi-sensory processing strategies¹⁸
- incorporation of direct instruction techniques¹⁹
- control of distractions²⁰
- varied and adequate practice/repetition to ensure mastery²¹
- fluency development (in both speed and accuracy)²²
- use of immediate corrective feedback²³
- additional time on task (intensity)²⁴
- continuous progress monitoring to inform instructional decisions²⁵



- elimination of fear and stress in the school environment,²⁶ and
- well-trained and caring teachers²⁷

Schools that develop their own interventions or purchase commercially developed programs can use these research-based findings as criteria in selecting programs for implementation that are sound and will produce positive results for struggling learners. It is prudent to remember the huge importance of teachers' expertise and the quality of their relationships with students in planning interventions. Teacher aides cannot do these difficult, complex jobs well.

Interventions include, but are not limited to, the special programs most schools have for economically disadvantaged children, English-language learners, and special education programs for children with learning disabilities. Texas also mandates, but does not fund, literacy programs for children identified for dyslexia, not understanding, apparently, that dyslexia also impacts mathematics achievement. Another problem is no identification of children with dyscalculia (mathematics disabilities) or dysgraphia (handwriting disabilities) is required currently, except in special education placements.

Good interventions pay for themselves over time by preventing assessment failure, retentionin-grade, and dropouts. The national average expenditure for a student in a year is \$11,655. If a school's use of interventions prevented the failure of even five students per grade level, the savings would be \$58,275—enough to pay for a full-time teacher, plus instructional materials for many students. Prevention of failure is always less expensive than remedial or recovery programs—and much, much less expensive than prisons.

Lowest Revenue and Highest Percentages of Struggling Learners

Figure 9 (on page 74) displays the percentage of struggling learners in the 100 districts with the lowest revenue per WADA in contrast to the 100 districts with the highest revenue per WADA in 2010-2011. For each group of students, the lowest-funded districts have higher percentages of students who are expensive to educate than the highest-funded districts—making the case again for a more equitable and adequate school finance system.

So money still matters. Districts with the highest percentages of student need should receive the funds they need to educate them. Instead, the 100 districts with the lowest revenue per WADA receive an average of \$5,210, which is \$3,082 less per WADA than the highest revenue districts that receive \$8,292.

Dropouts

Lack of appropriate interventions at the earliest signal that a child is falling behind is highly likely to cause students to drop out, not because of something inherent in the students. Almost all children are eager to start school. Almost all children love to learn. It is only when we send the message to children that they are failures at this thing called school that they begin to disengage—and then resolve to leave at the first possible opportunity. In the meantime, many begin to say they hate school, the classes are irrelevant, the teachers don't care about them, they are bored, and all they want is to learn how to get a job. They get involved in high-risk behaviors—perhaps, in part, as a call for help.

According to the 2011 issue of Diplomas Count by Education Week, the nation has turned a corner and graduation rates are on the rebound. In fact, they state, "The nation's graduation rate has reached its highest point in two decades."²⁸ Texas is among the states with improvements, from a rate of 60.2 percent graduating in 1998 to 66.6 percent in 2008—a growth of 6.4 percentage points.²⁹ A graduation rate that does not approach 100 percent, however, is a problem for the children involved, their families, and the society at large.

Yet, according to the Diplomas Count study in 2011, Texas is apparently one of the states with the most comprehensive policies relating to dropout prevention. We received check marks for all but



FIGURE 9:

Percentage of Struggling Learners in 100 Lowest and Highest Revenue School Districts

Data source: Texas Education Agency, 2010-2011, via the Equity Center.

LEP = Limited English Proficient; SPED = Special Education; At-Risk = One or more risk factors

puts the student at risk of not graduating; includes eligibility for free/reduced lunch.

one of the categories for "defining readiness." We received checks on all the items under "high school completion credentials." We got four out of five check marks for policies on "high school exit exams."³⁰

What we did not have in 2011 was an equitable and adequate funding system to prevent dropouts. The High School Allotment the legislature passed into law gave the same amount of money per student (not per WADA) to districts with few or no dropouts as they did to districts such as San Antonio ISD with an exceedingly high number of students who are economically disadvantaged or to a district such as Brownsville ISD, which has high rates of economically disadvantaged students and high numbers of English-language learners.

Also, Texas schools do not have the resources they need to intervene at the earliest possible time when a child needs an intervention. Very few three-year-olds have been involved in prekindergarten programs, relative to the need, and even fewer have access as of the 2011-2013 budget cuts. Children needing accelerated instruction are not receiving it in many cases, or are receiving it too late to make a difference. Dropout prevention is not exclusively the job of high schools. It is in very large part the job of preschool, and it continues to be a major emphasis for elementary and middle schools. As we have seen, if interventions are not in place years before grade 4, there is not much a high school can do to keep a ninth grader reading at grade 2 level to stay in school, even with the best possible interventions available at that juncture.

TEA's latest complete report on dropouts and high school completion is for school year 2009-2010. According to that report, the annual dropout rate was 2.4 percent, down from 3.7 percent in 2005-2006. The statistics for economically disadvantaged children show even better news: their annual dropout rate in 2009-2010 was 2.1 percent, down from 4.2 percent in 2005-2006.³¹ Dropout rates for limited-English proficient children in 2009-2010 was at 4.7 percent and for special education students at 3.2 percent.³²

In analyzing other data from the TEA report, a case can be made for the benefits of English-asa-second-language and bilingual programs in Texas as successful interventions. The annual dropout rate for all former LEP (limited-English proficient) students was 1.4 percent.³³ These are students who successfully exited the interventions for LEP students (typically bilingual education at the elementary level and ESL at the secondary level). As a group, these students were more likely to graduate than "all students." TEA published the 2010-2011 state-level report in August 2012.³⁴ This class was the first to have graduated under the "four-by-four" graduation requirements for the Recommended Graduation Program (RGP) or the Distinguished Achievement Program (DAP), and their graduation rate "is an all-time high, reaching 85.6 percent," and 92 percent either graduated in four years or continued high school for a fifth year, according to the TEA press release.³⁵

The graduation rate of 86 percent for all students was only two percentage points higher than the rate for economically disadvantaged students in 2010-2011. The state did not provide the data that would indicate the graduation rate for students who are not economically disadvantaged. The gap, therefore, between those who are economically disadvantaged and those who are not is more than the two percentage points since all the economically disadvantaged students are in the state average. We just don't know how much more.

The state's annual dropout rate was 2.4 percent. The rate for economically disadvantaged students was 2.7 percent; for special education students, 3.2 percent; and for limited-English proficient students, 4.6 percent.³⁶ Again, the gap cannot be determined since the state does not provide the data on percentages not economically disadvantaged, not identified for special education, and not limited-English proficient. The largest gap that can be identified is between the state average and the dropout rate for limited-English proficient students -- 2.2 percentage points.

As in the previous year, the very highest dropout rate is for students who are identified as limited-English proficient during high school years (4.6 annual rate and 24 percent longitudinal rate). It takes 7-10 years to become proficient in a second language, so an English-language learner coming into high school does not have 7-10 years, and it is virtually impossible for him/ her to become proficient in English and earn 26 academic credits and pass 15 end-of-course examinations in four years or less. The student fails repeatedly, and soon he/she gives up and drops out. Texas needs to revise its policies relating to the expectation that schools are somehow failing if these students do not graduate in four years. They need additional time and/or alternative routes, plus more intense programming (more time-on-task) in order to be successful.

Reports from individual districts are being published for the 2011-2012 school year. According to a recent article in the Texas Tribune, graduation rates have increased 14 percentage points since 2007 in Dallas ISD. Austin ISD reports a six-point improvement since 2008, and Houston ISD posts a 12-point gain. Duncanville ISD, however, reports declines. The article points out, rightly, that the celebration should not be planned just yet.³⁷ Texas had significant declines in

its graduation rates for a number of years, as reported in a major research study by scholars at Harvard University, the University of Texas at Austin, and Rice University, after implementing new assessments.³⁸ No one knows what the implications of the new end-of-course assessments that are a part of STAARs will be, but the projected low passing rates do not bode well. Texas now has a growing mass of children living in economically disadvantaged homes. Furthermore, state leaders impoverished their schools even more than they already were with the \$5.4 billion cut in the current biennium, including elimination of many preschool programs and other grants.³⁹

The Costs of Dropouts

In 2009 the Alliance for Excellent Education studied the economic benefits of reducing dropout rates. They published data specific to the nation's largest metropolitan areas, including the five largest areas in Texas (Austin, Dallas/Fort Worth, El Paso, Houston, and San Antonio). We summarized their findings in Money Does Matter: Investing in Texas Children and Our Future (2010).⁴⁰ There were approximately 77,600 dropouts in 2007-2008 in these five cities. If the number of dropouts could be reduced to half, said the Alliance, we would see the following economic benefits:

- \$484 million more dollars in increased earnings,
- \$351 million more dollars in increased spending,
- \$127 million more in increased investments,
- \$733 million more in increased home sales,
- \$39 million more in increased automobile sales,
- 3,950 more jobs created,
- \$46 million more in taxes paid,
- More than 60 percent increase in students going to college.⁴¹

The report of the Alliance in 2011 looked at the whole state, rather than just the largest metropolitan areas. About 135,100 students dropped out of the class of 2010 in Texas, they found. If the dropout rate were reduced in half, they estimated the following benefits to the state:

- \$859 million in increased earnings,
- \$641 million in increased spending,

- \$218 million in increased investments,
- \$1.3 billion in increased home sales,
- \$73 million in increased automobile sales,
- 5,900 new jobs
- \$1 billion in economic growth,
- \$61 million in increased tax revenue, and
- If 60% completed postsecondary programs, Texas would increase their graduates of those programs from 18,300 to 40,500.⁴²

In other words, cutting the dropout rate in half could result in an enormous economic stimulus, which would be exactly what every Texan would like to see right now. In the short term, graduating more students will require investments in more and higher-quality teachers, smaller class sizes, expansions of prekindergarten programs, interventions for all levels of schools, challenging curriculum, and adequate and appropriate learning resources and technology. Economists in general strongly agree there are huge returns on investment to be realized if we have more successful schools.⁴³ The Alliance report makes this comment:

States must view education reform as a key strategy for strengthening the economy. Improving educational outcomes creates a wave of economic benefits that include boosting individual earnings, home and auto sales, jobs and economic growth, spending and investment, and tax revenue in the state. Investing in turning dropouts into graduates will benefit all citizens, including bankers, auto dealers, realtors, and storeowners, not simply students or parents with children in school.⁴⁴

Given the evidence of the power of interventions to create real and meaningful opportunities to learn, to prevent failure and dropouts, to prevent identification for special education, and to put all children on the pathway to career- and workforce-readiness, it is difficult to understand why any policymaker at any level would deny schools the resources they need for student success. If we all addressed the needs of children as if they were our own children, these disparities would not occur. We Texans need to do what is right, what is responsible, what is visionary.

ENDNOTES

- 1. Rebell, M. A. (2007, May19). Poverty, "meaningful" educational opportunity, and the necessary role of the courts. North Carolina Law Review, 85, p. 1517.
- Elmore, R. F. & Fuhrman, S. H. (1995, Spring). Opportunity-to-learn standards and the state role of education. Teachers College Record, 96(3), pp. 433-458. See also Schwartz, W. (1995). Opportunity to learn standards: Their impact on urban students. ERIC/CUE, Digest Number 10. Retrieved July 18, 2012, from <u>http://ericdigests.org/1996-3/urban.htm</u>
- 3. Individuals with Disabilities Education Improvement Act (2004). Pub.L. 101-476.
- See Mellard, D. F. & Johnson, E. (2008). RTI: A practitioner's guide to implementing response to intervention. Thousand Oaks, CA: Corwin Press and National Association of Elementary Supervisors and Principals. National Association of State Directors of Special Education, Inc. (2006). Response to intervention: Policy considerations and implementation. Alexandria, VA: National Association of State Directors of Special

Education, Inc. Glover, T. A. & Vaughn, S. (Eds.) (2010). The promise of response to intervention: Evaluating current science and practice. New York City, NY: The Guilford Press. See also Education Week's Special Report on Response to Intervention, March 2, 2011: Monitoring Progress: Response to Intervention's Promise and Pitfalls. Tileston, D. W. (2011). Closing the RTI gap: Why poverty and culture count. Bloomington, IN: Solution Tree Press.

- 5. See Jensen, E. (2009). Teaching with poverty in mind: What being poor does to kids' brains and what schools can do about it. Alexandria, VA: Association for Supervision and Curriculum Development. Tokuhama-Espinosa, T. (2010). The new science of teaching and learning: Using the best of mind, brain, and education science in the classroom. New York City, NY: Teachers College, Columbia University. Bransford, J. D., Brown, A. L., & Cocking, R. R. (Eds.). (1999). How people learn: Brain, mind, Experience, and school. Washington, DC: National Academy Press. Willis, J. (2006). Research-based strategies to ignite student learning. Alexandria, VA: Association for Supervision and Curriculum Development. Sousa, D. A. (Ed.) (2010). Mind, brain, and education: Neuroscience implications for the classroom. Bloomington, IN: Solution Tree. Lupina, S. J. & Colombo, J. A. (2009). Poverty and brain development during childhood: An approach from cognitive psychology and neuroscience. Washington, DC: American Psychological Association.
- 6. For information and research on the power of formative assessment to improve student performance, see the following: Marzano, R. J. (2010). Formative assessment and standards-based grading. Bloomington, IN: Solution Tree. Cotton, K. (2000). The schooling practices that matter most. Alexandria, VA: Association for Supervision and Curriculum Development, pp. 12-13. Popham, W. J. (2008). Transformative assessment. Alexandria, VA: Association for Supervision and Curriculum Development. Mercer, C. D. & Mercer, A. R. (2005). Teaching students with learning problems (7th ed.). Upper Saddle River, NJ: Pearson (see Chapters 3 & 11). Pashler, H., Bain, P., Bottge, B., Graesser, A., Koedinger, K., McDaniel, M., & Metcalfe, J. (2007). Organizing instruction and study to improve student learning (NCER 2007-2004). Washington, DC: National Center for Education Research, Institute of Education Sciences, U. S. Department of Education. Ainsworth, L. & Christinson, J. (2000). Five easy steps to a balanced math program: A practical guide for K-8 classroom teachers. Denver, CO: Advanced Learning Press (see Chapter 4). Wolfe, M. J. (2005). Using assessment to support learning (pp. 177-195). In S. Wagner (Ed.). PRIME. Ohio Department of Education. Retrieved April 20, 2006) from <u>http://ohiorc.org/orc_documents/orc/for_mathematis/PRIME/PRIME/PRIME.pdf</u>. Glasser, W. (1990). The quality school: Managing students without coercion. New York City, NY: Harper and Row.
- 7. Sahlberg, P. (2010). Finnish lessons: What can the world learn from educational change in Finland? New York City, NY: Teachers College, Columbia University, p. 59.
- 8. Sahlberg, P. (2010), p. 60. See note 7.
- 9. Sahlberg, P. (2010), p. 47. See note 7.
- 10. Federal law defines "least restrictive environment" as follows: To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily." See note 3.
- 11. Sahlberg, P. (2010), p. 48. See note 7.
- 12. Schott Foundation for Public Education (2011). Texas. National Opportunity to Learn Campaign. Retrieved February 16, 2012, from http://www.otlcampaign.org/state-updates/texas and http://www.otlcampaign.org/state-updates/texas and http://schottfoundation.org
- 13. Jensen, E. (2009). Teaching with poverty in mind: What being poor does to kids' brains and what schools can do about it. Alexandria, VA: Association for Supervision and Curriculum Development, p. 55.
- 14. Jensen, E. (2009). See note 13.
- Ball, D. L., Ferrini-Mundy, J., Kilpatrick, J., Milgram, R. J., Schmid, W., & Schaar, R. (2005). Reaching for common ground in K-12 mathematics education, p. 3. MAA Online. The Mathematics Association of America. Retrieved August 7, 2012, from http://www.maa.org/common-ground/cg-report2005.html. Moss, J. (2005). Pipes, tubes, and beakers: New approaches to teaching the rational-number system. In M. S. Donovan & J. D. Bransford (Eds.), How students learn: Mathematics in the classroom. Washington, DC: National Academies Press, p. 310. Balfanz, R., McPartland, J., & Shaw, A. (2002, April). Re-conceptualizing extra help for high school students in a high standards era, pp. 10-11. Baltimore: Center for Social Organization of Schools, Johns Hopkins University. Wu, H. (2001, Summer). How to prepare students for algebra. American Educator, p. 7. Retrieved August 7, 2012, from http://www.aft.org/newspubs/periodicals/ae/summer2001/index.cfm
- 16. For more information on critical content: Hart, B. & Risley, T. R. (1995). Meaningful differences in the everyday experience of young American children. Baltimore, MD: Paul H. Brookes Publishing Company. National Reading Panel (2000). Teaching children to read: An evidence-based assessment of the scientific literature on reading and its implications for reading instruction. Reports of the subgroups. Washington, DC: U. S. Department of Health and Human Services. National Institutes of Health. National Council of Teachers of Mathematics (2006). Curriculum Focal Points. Reston, VA: National Council of Teachers of Mathematics. Marzano, R. J. & Kendall, J. S. with Gaddy, B. B. (1999). Essential knowledge: The debate over what American students should know. Aurora, CO: McREL. Marzano, R. J. (1998, December). A theory-based meta-analysis of research on instruction. Aurora, CO: McREL. Genessee, F., Lindholm-Leary, K., Saunders, W. M., Christian, D. (2006). Educating English language learners: A synthesis of research evidence. New York City, NY: Cambridge University Press. Garcia, E. E. & Frede, E. C. (Eds.) (2010). Young English language learners: Current research and emerging directions for practice and policy. New York City, NY: Teachers College, Columbia University. Sherman, H. J., Richardson, L. I., & Yard, G. J. (2005). Teaching children who struggle with mathematics: A systematic approach to analysis and correction. Upper Saddle River, NJ: Pearson/Merril Prentice Hall.
- 17. For more information on individualization/personalization: Mercer, C. D. & Mercer, A. R. (2005). Teaching students with learning problems (7th ed.). Upper Saddle River, NJ: Pearson/Merrill/Prentice Hall. Rose, D. H. & Meyer, A. (2002). Teaching every student in the digital age: Universal design for learning. Alexandria, VA: Association for Supervision and Curriculum Development. Alliance for Excellent Education (2004, January). Reading for the 21st century: Adolescent literacy teaching and learning strategies. Issue Brief. Washington, DC: Alliance for Excellent Education. Sherman, H. J., Richardson, L. I., & Yard, G. J. (2005). See note 18.
- 18. For more information on multi-sensory processing strategies: Rose, D. H. & Meyer, A. (2002). See note 19. Wolf, M. (2007). Proust and the squid: The history and science of the reading brain. New York City, NY: HarperCollins Publishers. Doidge, N. (2007). The brain that changes itself: Stories of personal triumph from the frontiers of brain science. New York City, NY: Penguin Books. Shaywitz, S. E. & Shaywitz, B. A. (2004). Neurobiological basis for reading and reading disability. In P. McCardle & V. Chhabra (Eds.). The voice of evidence in reading neesarch (pp. 417-422). Baltimore, MD: Paul H. Brookes Publishing Co. Kandel, E. R. (2006). In search of memory: The emergence of a new science of mind. New York City, NY: W. W. Norton and Company. Sternberg, R. J. (2003). Cognitive psychology (3rd ed.). Belmont, CA: Wadsworth/Thompson Learning. Bruer, J. T. (1993). Schools for thought: A science of learning for the classroom. Cambridge, MA: MIT Press. Echevarria, J., Vogt, M., & Short, D. J. (2000). Making content comprehensible for English language learners: The SIOP model. Boston, MA: Allyn and Bacon.

Genessee, F., Lindholm-Leary, K., Saunders, W. M., Christian, D. (2006). See note 18. Sousa, D. A. (2011). How the ELL brain learns. Thousand Oaks, CA: Corwin Press. Garcia, E. E. & Frede, E. C. (Eds.) (2010). See note 18. Gersten, R. & Baker, S. (2003). English-language learners with learning disabilities. In H. L. Swanson, K. R. Harris, & S. Graham. Handbook of learning disabilities. New York City, NY: The Guilford Press. Butterworth, B. (2005). Development dyscalculia. In J. I. D. Campbell (Ed.). Handbook of mathematical cognition. New York City, NY: Psychology Press.

- For more information on direct instruction: Kirschner, P. A., Sweller, J., & Clark, R. E. (2006). Why minimal guidance during instruction does not work: An analysis of the failure of constructivist, discovery, problem-based, experiential, and inquiry-based teaching. Educational Psychologist, 41(2), 75-86. Retrieved July 19, 2012, from http://igitur-archive.library.uu.nl/fss/2006-1214-211848/kirschner_06_minimal_guidance.pdf. Mercer, C. D. & Mercer, A. R. (2005). See note 19. National Research Council (1997). Educating one and all: Students with disabilities and standards-based reform. Washington, DC: National Academy Press. Gersten, R. & Baker, S. (2003). See note 20. Sherman, H. J., Richardson, L. I., & Yard, G. J. (2005). See note 18.
- 20. For more information on the control of distractions: Kirschner, P. A., Sweller, J., & Clark, R. E. (2006). See note 21. Mercer, C. D. & Mercer, A. R. (2005). See note 19. Geraci, M. G. (2002). Designing web-based instruction: A research review on color, typography, layout, and screen density. Beaverton, OR: University of Oregon Applied Information Management Program. Gersten, R. & Baker, S. (2003). See note 20.
- 21. For more information on varied and adequate practice: Kandel, E. R. (2006). See note 20. Jensen, E. (2009). See note 16. Sternberg, R. J. (2003). See note 20. Marzano, R. J., Pickering, D. J., & Pollock, J. E. (2001). Classroom instruction that works: Research-based strategies for increasing student achievement. Alexandria, VA: Association for Supervision and Curriculum Development. Shaywitz, S. (2003). Overcoming dyslexia: A new and complete science-based program for reading problems at any level. New York City, NY: Alfred A. Knopf. Genessee, F., Lindholm-Leary, K., Saunders, W. M., Christian, D. (2006). See note 18. Sousa, D. A. (2011). See note 20. Garcia, E. E. & Frede, E. C. (Eds.) (2010). See note 18. Gersten, R. & Baker, S. (2003). See note 20. Sherman, H. J., Richardson, L. I., & Yard, G. J. (2005). See note 18.
- 22. For more information on fluency development: National Reading Panel (1997). See note 18. Wolf, M. (2007). See note 20. Mercer, C. D. & Mercer, A. R. (2005). See note 19. Wu, J. (2001, Summer). How to prepare students for algebra. American Educator. Retrieved July 19, 2010, from learn.shorelineschools.org/spec/emath/documents/wu_algebra.pdf . Kilpatrick, J., Swafford, J., & Findell, B. (Eds.) (2001). Adding it up: Helping children learn mathematics. Washington, DC: National Academy Press. Garcia, E. E. & Frede, E. C. (Eds.) (2010). See note 18. Gersten, R. & Baker, S. (2003). See note 20. Sherman, H. J., Richardson, L. I., & Yard, G. J. (2005). See note 18.
- 23. For more information on immediate corrective feedback: Marzano, R. J., Pickering, D. J., & Pollock, J. E. (2001). See note 23. Mercer, C. D. & Mercer, A. R. (2005). See note 19. Willis, J. (2006). See note 7. Brookhart, S. M. (2008). How to give effective feedback to your students. Alexandria, VA: Association for Supervision and Curriculum Development. Hattie, J. (2009). Visible Learning: A synthesis of over 800 meta-analyses relating to achievement. New York City, NY: Routledge, pp. 173-178. Marzano, R. J., Norford, J. S., Paynter, D. E., Pickering, D. J., Gaddy, B. B. (2001). A handbook for classroom instruction that works. Alexandria, VA: Association for Supervision and Curriculum Development. Garcia, E. E. & Frede, E. C. (Eds.) (2010). See note 18.
- For more information on time-on-task: National Research Council (1997). See note 21. Mercer, C. D. & Mercer, A. R. (2005). See note 19. Snow, C. E., Burns, S. M., & Griffin, P. (Eds.) (1998). Preventing reading difficulties in young children. Washington, DC: National Academy Press. Jensen, E. (2009). See note 16. Rebell, M. A. & Wardenski, J. J. (2004, January). Of course money matters: Why the arguments to the contrary never added up. New York City, NY: The Campaign for Fiscal Equity, Inc. Gersten, R. & Baker, S. (2003). See note 20.
- 25. For more information on continuous progress monitoring: Marzano, R. J. (2010). Formative assessment and standards-based grading. Bloomington, IN: Solution Tree. Cotton, K. (2000). The schooling practices that matter most. Alexandria, VA: Association for Supervision and Curriculum Development, pp. 12-13. Popham, W. J. (2008). Transformative assessment. Alexandria, VA: Association for Supervision and Curriculum Development. Mercer, C. D. & Mercer, A. R. (2005). See Chapters 3 & 11. See note 19. Pashler, H., Bain, P., Bottge, B., Graesser, A., Koedinger, K., McDaniel, M., & Metcalfe, J. (2007). Organizing instruction and study to improve student learning (NCER 2007-2004). Washington, DC: National Center for Education Research, Institute of Education Sciences, U. S. Department of Education. Ainsworth, L. & Christinson, J. (2000). Five easy steps to a balanced math program: A practical guide for K-8 classroom teachers. Denver, CO: Advanced Learning Press (see Chapter 4). Wolfe, M. J. (2005). Using assessment to support learning (pp. 177-195). In S. Wagner (Ed.). PRIME. Ohio Department of Education. Retrieved April 20, 2006) from http://ohiorc.org/orc_documents/orc/for_mathematis/PRIME/PRIME.pdf_. Glasser, W. (1990). The quality school: Managing students without coercion. New York City, NY: Harper and Row. Genessee, F., Lindholm-Leary, K., Saunders, W. M., Christian, D. (2006). See note 18.
- 26. For more information on removing fear from school environment: Willis, J. (2006). See note 7. Jensen, E. (2009), p. 22-31. Glasser, W. (1990). See note 27. Hattie, J. (2009), pp. 48-49. See note 25. Cotton, K. (2000). See note 8. Wolf, P. (2001). Brain matters: Translating research into classroom practice. Alexandria, VA: Association for Supervision and Curriculum Development. Jensen, E. (2001). Teaching with the brain in mind. Alexandria, Va: Association for Supervision and Curriculum Development.
- For more information on well-trained and caring teachers: Snow, C. E., Burns, S. M., & Griffin, P. (Eds.) (1998). See note 26. Darling-Hammond, L. (2010). See note 3. Neuman, S. B. (2007, October). Changing the odds. Educational Leadership, 65(2), pp. 16-21. Delpit, L. (2012). "Multiplication is for white people": Raising expectations for other people's children. New York City, NY: The New Press.
- 28. Swanson, C. B. (2011, June 9). Nation turns a corner: Strong signs of improvement on graduation. Education Week, 30(34), p. 23.
- 29. EPE Research Center (2011, June 9). Graduation in the United States: High school completion gains momentum. Education Week, 20(34), p. 26.
- 30. EPE Research Center (2011, June 9). Graduation policies for the class of 2011. Education Week, 20(34), pp. 28-29.
- 31. Texas Education Agency (2011, July). Secondary school completion and dropouts in Texas public schools, 2009-10. Austin, TX: Texas Education Agency, p. 53.
- 32. Texas Education Agency (2011, July), p. 54. See note 36.
- 33. Texas Education Agency (2011, July), p. 66. See note 36.
- 34. Texas Education Agency (2012, August). Secondary school completion and dropouts in Texas public schools, 2010-11. Austin, TX : Texas Education Agency, p. 53.
- 35. Texas Education Agency (2012, August). See note 34.
- 36. Texas Education Agency (2012, August). See note 34.
- 37. Smith, M. (2012, July 22). Texas high school graduation rates improve, but why? Texas Tribune. Retrieved July 24, 2012, from http://www.texastribune.org/texas-education/public-education/texas-high-school-graduation-rates-improve-why/.
- McNeil, L. M., Coppola, E., Radigan, J., & Heilig, J. V. (2008, January 31). Avoidable losses: High-stakes accountability and the dropout crisis. Education Policy Analysis Archives. Retrieved August 6, 2012, from <u>http://epaa.asu.edu/ojs/article/view/28</u>.
- Smith, M. (2012, July 12). State's dropout rate shows positive signs. Texas Tribune and New York Times. Retrieved July 25, 2012, from <u>http://www.nytimes.</u> com/2012/07/22/education/texas-public-school-dropout-rate-on-the-decline.html?pagewanted=all.
- 40. Lesley, B. A. (2010). Money Does Matter: Investing in Texas children and our future. Austin, TX: Equity Center. Retrieved July 25, 2010, from http://www. equitycenter.org.
- 41. Alliance for Excellence in Education (2009). The economic benefits of reducing the dropout rate in the nation's largest metropolitan areas. Retrieved March 16, 2010, but now unavailable.
- 42. Alliance for Excellence in Education (2011). Education and the economy: Boosting Texas's economy by improving high school graduation rates. Retrieved July 25, 2012, from http://www.all4ed.org/files/Texas_seb.pdf.
- 43. Belfield, C. R. & Levin, H. M. (2007). The price we pay: Economic and social consequences of inadequate education (pp. 1-17). Washington, DC: Brookings Institution Press.
- 44. Alliance for Excellence in Education (2011), p. 1. See note 46.

ENGLISH DICTIONAR

High Expectations & Challenging Curriculum Matter

What citizens, parents, and educators expect of children (and which is then codified in courses of study) is called "curriculum," and, according to experience, intuition, and scientific research, high expectations and challenging curriculum matter.

One of the first studies on the power of teacher expectations, Pygmalion in the Classroom, was completed in 1968 by Rosenthal and Jacobsen. They argued that teachers' expectations were powerful influencers on the success of student learning.¹ In the late 1970's educators learned about the importance of high expectations for all students through the research of Ron Edmonds. "High expectations" was the first correlate listed in the body of recommended strategies he verified as important in improving student performance in what came to be known as Effective Schools Research.² Robert Marzano and other researchers took that work forward. He wrote "high expectations for students, particularly those from low socioeconomic backgrounds, are a cornerstone of the school effectiveness research."³ Hattie's (2009) meta-analysis of available studies on expectations for all students, and teachers who have positive student-teacher relationships . . . are more likely to have above average effects on student achievement.⁴ "Warm demanders," writes Delpit (2012) "expect a great deal of their students, convince them of their own brilliance, and help them to reach their potential in a disciplined and structured environment."⁵

High expectations for students' mastery of challenging content is, therefore, a time-honored value unto itself. Learning at high levels and learning to think deeply and critically about content across many disciplines are highly desired by all those who value education. America's founders

saw education as a necessary component of sustaining a democratic form of government, so part of our culture is an understanding that citizenship—and parenting—require us to be learners.

In recent decades we have seen two additional powerful reasons to have high expectations for our children and to teach them well: (1) the advancements of technology that have shoved the industrial society aside in favor of a knowledge society and (2) the emergence of a global economy (also possible because of technology) that forces a child in Waco, Texas, to compete with a child not only in Central Texas, or in the State of Texas, or in the Southwest, or in America, but with a child in India or China or Germany or South Africa—or Finland. The importance of high expectations has become even more evident and critically relevant in the 21st century.

In Darling-Hammond's (2010) book, The Flat World and Education: How America's Commitment to Equity Will Determine Our Future (2010), examines the demands of the global economy and knowledge-based society and calls on Americans to provide more adequate and equitable funding for schools so that all of us now and in the future can compete successfully. In the first chapter she writes:

In the last decade, mountains of reports have been written in countries around the world about the need for more powerful learning focused on the demands of work and citizenship in the 21st century. The process of managing decisions and solving social and scientific problems in contemporary democracies is growing more complex. At least 70% of U.S. jobs now require specialized knowledge and skills, as compared to only 5% at the dawn of the last century, when our current system of schooling was established. The new skills include the capacity to:

- Design, evaluate, and manage one's own work so that it continually improves
- Frame, investigate, and solve problems using a wide range of tools and resources
- Collaborate strategically with others

"The new mission of schools is to prepare students to work at jobs that do not yet exist, creating ideas and solutions for products and problems that have not yet been identified, using technologies that have not yet been invented."

- Communicate effectively in many forms
- Find, analyze, and use information for many purposes
- Develop new products and ideas.⁶

She reminds us, "the new mission of schools is to prepare students to work at jobs that do not yet exist, creating ideas and solutions for products and problems that have not yet been identified, using technologies that have not yet been invented."⁷

Then she asks these compelling questions:

Is our society ready to take on this challenge? Are we able to provide education that will develop these more complex skills—not just for a small slice of students who have traditionally been selected for the kind of ambitious learning represented in elite schools and advanced programs, but for the vast majority of children in communities across the country? Or will we be waylaid by our long-standing tradition of unequal education coupled with our inability, thus far, to move from a factory model approach to education designed at the end of the 19th century to one that is pointed clearly and unambiguously at the demands of the 21st?⁸

Her book makes a powerful argument:

... the United States needs to move much more decisively than it has in the last quarter century to establish a purposeful, equitable education system that will prepare all our children for success in a knowledge-based society. This means moving beyond a collection of disparate and shifting reform initiatives, only occasionally related to what we know about teaching and learning, to a thoughtful, well-organized, and well-supported set of policies that will enable students to learn how to learn, create, and invent the new world they are entering. It also means making good on the unmet American promise that education will be made available to all on equal terms, so that every member of this society can realize a productive life and contribute to the greater welfare.⁹

She adds:

As Americans seek to deal with the effects of the monetary meltdown that became an economic tsunami . . ., it is critical to realize that financial responses alone won't ultimately safeguard our economic and social well-being, and that substantial, strategic investments in

education are essential to our long-term prosperity and to our success as a democracy. We cannot just bail ourselves out of this crisis. We must teach our way out.¹⁰

Texans are not unaware of the challenges before us. Several steps have been taken to raise expectations for students. We have:

- · developed comprehensive curriculum standards that are frequently updated;
- increased numbers of credits required for graduation and increased content of those courses;
- encouraged schools to offer Advanced Placement and other advanced courses;
- adopted policies relating to developing career- and workforce readiness for all Texas graduates;
- adopted policies to encourage lower dropout rates; and
- changed assessment requirements to make them more rigorous.

In addition, with the passage of No Child Left Behind, the federal government set an unprecedented expectation that every single student in America, including those who just entered the country, those who have learning disabilities, and those who have suffered the effects of economic disadvantage, would perform at or above the proficient level on state assessments by 2014. At both the state and federal levels, policies require the same student performance of struggling learners as they do of more advantaged students.

Many of us would argue these policy changes are insufficient and even inappropriate, but they have been enacted, and they cost a great deal of money to implement. They require increasingly more sophisticated instructional materials, more teachers, interventions to reduce dropout rates as well as to improve academic performance, more career and technical education courses, more quality teachers to teach advanced mathematics and science courses, more science labs, more counselors to guide students, and on and on.

Importantly, policymakers need to realize goal-setting and mandates alone are not what make students better educated upon graduation. Education starts at birth, and if we do it right, then students will graduate from high school, and they will be well-educated. Doing it right means that we put into place as soon after birth as necessary the opportunities to learn that are needed for each student to achieve the expectations set forth in policy, not just to punish them and their schools if they do not achieve them on their own.

Yet, the budget cuts for 2011-2013 resulted in severe reductions in curriculum/ instruction budgets across the state, already stretched in most districts due to inadequate and inequitable funding. School year 2011-12 found Texas schools with fewer teachers, larger classes, fewer children in preschool programs, fewer interventions for struggling students, fewer dropout prevention programs, and less money for technology, as well as reduced funds for instructional materials. The effects were even more devastating for districts with significantly lower revenues per WADA and with higher percentages of children who are more expensive to educate than the wealthier districts. Under these circumstances policies to enhance curriculum requirements and to pay for more assessments are just plain meaningless.

Almost everyone now talks about the importance of high expectations and challenging curriculum; we just don't always act on that knowledge—especially when it comes to schools with high percentages of children who are economically disadvantaged, who are Englishlanguage learners, and/or who are in special education, and, in Texas, when it comes to funding those schools equitably and adequately.

Figures 10 and 11 provide data on the percentages of students who are economically disadvantaged and who are limited-English proficient for the three lowest levels of property wealth (less than \$185,513 per student) and for the three highest levels of property wealth

FIGURE 10:

Percentage of Economically Disadvantaged Students by Levels of Property Wealth Per Student



Data Source: Texas Education Agency, Snapshot 2010-2011

(\$516,185 and over, per student). (The state's report divides districts into 20 levels of property wealth, so each level includes approximately 5 percent of the districts.) The percentages of students identified for special education are about the same (8-9 percent), regardless of the wealth level of districts.

In each case, we see the districts with the highest percentages of struggling learners have to do the best they can with significantly less revenue than districts with significantly lower percentages of struggling learners, yet higher revenue per student.

Texas Children's Academic Achievement

There are many ways to evaluate whether a school has high expectations and a challenging curriculum in place for all students. Texas has chosen multiple choice assessments, for the most part, of all children in grades 3-12, currently known as the STAARs (State of Texas Assessment of Academic Readiness), including multiple end-of-course (EOC) tests for high school students. Beginning with the class that entered the ninth grade in 2011-12, students must pass 15 EOC tests in order to graduate under the Recommended High School Program or the Distinguished Achievement Program. Students electing the Minimum Graduation Plan must pass 11.

Unfortunately, only the state-level high school scores were available at publication, so little meaningful analysis is possible. The Texas Education Agency, in releasing these scores, explained that the passing requirements for STAARs will be phased in over time. Reports, therefore, include the percentage of students who passed using the "Phase-in Standard," as well as the



FIGURE 11:

Percentage of Limited English Proficient Students by Levels of Property Wealth Per Student

Data Source: Texas Education Agency, Snapshot 2010-2011

"Recommended Standard," which will go into effect in 2016. In the meantime the passing standard will gradually increase until it reaches the final passing standards.¹¹

Figure 12 shows the percentages of "all students" in grade 9 passing (according to the "Phase-In Standard"), as well as the percentages of the three large groups of struggling learners economically disadvantaged, limited-English proficient, and special education.

Gaps are larger than they appear since the three groups of struggling learners are also included in the "all students" scores. TEA's reports did not include scores for students who are not limited-English proficient, not economically disadvantaged, and/or not identified for special education.

Figure 13 provides the data on the percentage of students who scored at the Advanced Academic Performance Level, which means, according to TEA, these students "are well prepared for the next course."¹² Very few students scored at the advanced level in 2011-12, even using the "Phase-in Standards." Again, the scores of struggling learners who scored at this highest level are included in the "all student" report, so the gaps are larger than they appear.

Figures 12-13 paint a dismal picture for Texas, even in using the "Phase-in Standards" to define a passing grade. Assuming the validity of the "Recommended Standards" that will be phased in,



Data source: Texas Education Agency. English IW = English I Writing; English IR = English I Reading

Eco. Disadv. = Economically Disadvantaged; LEP = Limited English Proficient;

SPED = Special Education

however, the scores tell us that fewer than half of students who took STAARs are even passing. Fewer than one-third of economically disadvantaged students are passing.

Unless schools can produce higher scores quickly, it is likely that STAARs will increase the dropout rate, so again, a policy in itself does not produce high achievement—unless schools have the resources to provide adequate and equitable opportunities to learn. Texans need to think long and hard about what test scores mean—and what they do not mean. Far too much importance has been attached to the state assessments over the past four decades, and children, their teachers, and their schools have suffered the consequences.

Had educators or researchers been consulted, most, if not all, would have advised the state that it is not good policy to enact a much more rigorous set of expectations for students (that result in significantly fewer resources in all the areas that matter) in the same year they made the largest cuts in history to the education budget. Educators and researchers would have also questioned the wisdom of spending hundreds of millions of dollars in the biennium on assessments that, just as they have not for more than 30 years, will not produce any new information to anyone that will result in better academic achievement. Our obsession with standards/assessments/ accountability is difficult for educators and parents to understand, when most understand these policies cause far more harm than good, and they are costing hundreds of millions of dollars annually.



FIGURE 13:

Percentage Scoring Advanced, 2011-2012



English IW = English I Writing; English IR = English I Reading; Eco. Disadv. = Economically

Disadvantaged; LEP = Limited English Proficient; SPED = Special Education

In the meantime, if high test scores are to be the goal, will equitable and adequate funding improve scores? We already have the data that would strongly suggest it would. When we look at the districts with the highest TAKS scores, we find higher levels of funding; and when we look at the districts with the lowest TAKS scores, we find significantly lower levels of funding.

Figure 14 looks at the average percentage of students passing all TAKS taken in 2010-2011 by the three lowest and three highest levels of property wealth. (The Snapshot reports from the Texas Education Agency divide districts into 20 levels of property wealth, so each level includes about five percent of the districts.) As we have seen repeatedly, the level of funding in a school district is highly predictive of the academic performance of the students in that district. Students in the three lowest-wealth levels of districts consistently score below the students in the three highest-wealth levels of districts. The highest score among the lowest-wealth districts (74 percent passing all TAKS taken) is 5 percentage points below the lowest score among the highest-wealth districts. The gap between the lowest-wealth districts (68 percent) and the highest-wealth districts (85 percent) is 17 percentage points.

Lest anyone think these gaps are inevitable, new research finds that gaps based on gender and racial-ethnic characteristics, when controlled for poverty, are not nearly as large as those based on socioeconomic status.¹³ Examining those data, Reardon (2011) finds that,

An ironic consequence of the regularity of this pattern is that we tend to think of the relationship between socioeconomic status and children's academic achievement as a

FIGURE 14:

Percentage Passing All TAKS, 2010-2011, by Property Wealth Per Student



Data source: Texas Education Agency, 2010-2011, Snapshot

sociological necessity, rather than as a product of a set of social conditions, policy choices, and educational practices.¹⁴

It is evident policy choices relating to school funding is a major factor in the achievement gaps we commonly see.

Reardon then asks the question: "As the income gap between high- and low-income families has widened, has the achievement gap between children in high- and low-income families also widened?" His answer follows.

The answer, in brief is yes. The achievement gap between children from high- and lowincome families is roughly 30 to 40 percent larger among children born in 2001 than among those born twenty-five years earlier. In fact, it appears that the income achievement gap has been growing steadily for at least fifty years, though the data are less certain for cohorts of children born before 1970.¹⁵

The major reasons for the growth of the gap is, according to Reardon, that the rich are richer than they were 25 years ago and therefore have more time and money to spend on their children, and "increasing income segregation has led to greater differentiation in school quality and schooling opportunities between the rich and the poor."¹⁶ In other words, segregation by class leads to inequitable and inadequate funding systems like that in Texas.

According to Education Week's Quality Counts report card for states in Standards, Assessments, and Accountability, Texas earned a grade of A- and ranked 14th among the states.¹⁷ Clearly, then, a state can enact policies and procedures that establish high expectations and a challenging curriculum (with challenging assessments), but the policy does not necessarily result in high performance for all students. Without the resources to purchase the things that matter, without quality teachers to make critical decisions about curriculum pacing and the appropriate instructional strategies, without students having authentic and meaningful opportunities to learn, without appropriate and timely interventions, the rigor of policy means nothing.

Another way to determine whether schools are challenging students in meaningful ways is to ask the students. Teachers and parents will not be surprised with these findings, for they know that a curriculum focused on TAKS objectives is not intellectually engaging, especially when so much time is spent on test preparation—over and over again. Boser and Rosenthal (2012, July 10) issued a report using National Assessment of Educational Progress (NAEP) data from the United States Department of Education to analyze the responses to survey questions administered to students who take the NAEP. They studied student responses on these issues:

Given the recent debates over academic standards, . . . we looked closely at issues of rigor and student expectations. Do students think that they are being challenged enough? Do teachers engage students in deep learning opportunities? We were also interested in issues of access since students provide an important, classroom-eye view of the resources that are available to them. Are all students being given access to the types of learning opportunities that they need to be prepared for college and the modern workplace? Are those resources distributed fairly among different types of students and schools?¹⁸

Their findings follow:

- Many schools are not challenging students and large percentages of students report that their school work is "too easy."
- Many students are not engaged in rigorous learning activities.
- Students don't have access to key science and technology learning opportunities.
- Too many students don't understand their teacher's questions and report that they are not learning during class.
- Students from disadvantaged backgrounds are less likely to have access to more rigorous learning opportunities.¹⁹

Teachers have warned policymakers for years that the almost total focus on test scores is significantly narrowing the curriculum, making it less engaging and meaningful, lessening opportunities for higher-order thinking and creativity, and taking the joy out of both teaching and learning.²⁰ These survey results have to be interpreted, at least in part, in that context.

Darling-Hammond (2010) provides evidence that too much focus on test preparation actually decreases student achievement:

... the NCLB approach has not raised performance on international assessments such as PISA that measure higher-order thinking skills and the ability to apply knowledge to novel problems. Over the years during which NCLB has been in force, U. S. scores and rankings declined on international assessments.... Meanwhile, annual gains on the U.S. National

Assessment of Educational Progress (NAEP) slowed considerably after the implementation of NCLB, crawling nearly to a halt in 8th-grade reading.²¹

She explains why this unanticipated result of policy occurred:

... attaching high stakes to tests often causes schools to focus on the tested material and formats in ways that narrow the curriculum and do not generalize to other situations or kinds of knowledge. Second, the international PISA assessments differ significantly from the NAEP and most state tests in their focus on analyzing and applying knowledge to new situations, rather than just recalling or recognizing discrete pieces of knowledge. This kind of analysis is closer to the ways in which knowledge and skills are used in the world outside of school. Finally, the kind of knowledge than transfers from one situation to another is based on students' abilities to understand central principles, see connections and make distinctions, and be strategic in attacking problems and analyzing information. This is precisely the kind of learning that is less prominent in schools where multiple-choice tests of basic skills drive the curriculum. Thus, the harder we try to raise scores on the narrow instruments currently used in the United States, the more likely we are to fall behind on the more sophisticated measures that are increasingly used to evaluate education around the world.²²

Education is complex, so those who seek easy, simple solutions such as putting into place standards, assessments, and accountability and then thinking learning will happen are sadly misinformed—or there is another agenda at work. Texas can have meaningful curriculum standards. We can implement formative assessments that do result in improved performance. We can be accountable without filling school environments with fear, stress, despair, and hopelessness. What we have to add to the solution are personalized, meaningful opportunities to learn. This requires money, time, resources—and a commitment to the children—from all of us.

Texas Diploma Programs

Another way high expectations are communicated is in graduation requirements—another policy decision. Texas has very challenging requirements—for some students, beginning with the class starting grade 9 in 2006-2007. According to Education Week, Texas requires more credits for graduation (26) than any other state in America.²³ Students may choose among three diploma plans: Minimum, Recommended High School Program (RHSP), or Distinguished Achievement Program (DAP). A student is not allowed to choose the "Minimum" plan "unless the student, the student's parent, and a school counselor or administrator agreed to allow the student" to do so.²⁴

Of the 2009-2010 graduates, 14.6 percent were allowed to choose the "Minimum" plan for graduation. Another 72.6 percent chose the Recommended High School Program, and 12.8 percent chose the Distinguished Achievement Program.²⁵ Figure 15 shows the percentages of graduates who were and were not economically disadvantaged in each of the plans, along with the state average. It is clear students who are economically disadvantaged are over-represented among those pursuing the Minimum plan and under-represented among those pursuing the Distinguished Achievement.

Since only about 9-10 percent of students are identified for special education, and certainly not all of them have learning disabilities, it is difficult to understand why 17 percent of economically disadvantaged children should be allowed to pursue a "Minimum" plan. Some may be students who are identified as limited-English proficient, but most high schools have very small percentages of students who are not English-proficient. The seven-point gap between economically disadvantaged students and their more advantaged peers pursuing the Distinguished Academic Program is also troublesome.

In the 2010-2011 report TEA did not provide statistics on those who are not economically disadvantaged. The gaps between those who are economically disadvantaged and the state average are, therefore, less than they would be had the data been provided since the scores of the economically disadvantaged are included in the state average. Figure 16 provides the information on diploma programs of the 2010-2011 graduates.



Data Source: Texas Education Agency, 2009-10.

Totals for each group may exceed 100% due to rounding.

The class of 2010-2011 was the first class to graduate with the "four-by-four" requirements for the RHSP and the DAP. One result of the enhanced requirements was the percentage of students graduating under the "Minimum" plan increased from 15 percent in 2009-2010 to 18 percent in 2010-2011. For those who were economically disadvantaged, the percentage increased from 17 percent to 22 percent.

In 2009-2010 the state percentage of students graduating under the RHSP was 73 percent, and that number declined to 69 percent in 2010-2011. Seventy-four percent of economically disadvantaged students completed the RHSP in 2009-2010, but only 70 percent did so in 2010-2011. The percentage of students graduating under the DAP in 2010-2011 was 13 percent, exactly the same as for 2009-2010. The percent of economically disadvantaged students remained at 9 percent.

The overall result of the new and more rigorous requirements, therefore, at least in the first year for graduates, was more students opted for the "Minimum" plan, and fewer pursued the RHSP. More than one in five economically disadvantaged students is taking the "Minimum" route.

However, again, putting the quality teachers, small classes, preschool programs, interventions, and challenging expectations and curriculum in place to take every student to his or her potential is the key—not just writing a policy or passing a law. Small high schools, for example, find it difficult to afford all the advanced courses that are more easily accessible in large schools. They also have difficulties staffing these courses since they need many teachers with certification



Data Source: Texas Education Agency, 2009-10.

Totals for each group may exceed 100% due to rounding.

in two or more areas. Large schools have such high concentrations of children from lowincome homes, along with inadequate resources, that they cannot provide all the necessary supports. Interventions are clearly needed to move students out of the "Minimum" plan—and to move more students to the DAP. Too, just as with dropout prevention, the pathway to the Distinguished Academic Plan begins when the child starts to school, preferably at age 3. Large numbers of children coming into high school unprepared for challenging curriculum and/or who are limited-English proficient cannot suddenly become proficient in English and, at the same time, be equipped to take 26 rigorous courses and pass the requisite 15 STARRs end-ofcourse examinations in four years. Blaming high schools for their inability to do that is totally inappropriate. Branding them as "dropout factories" is totally unacceptable. We can only examine our policies and our funding priorities for the solutions.

Instructional Materials and Technology

The importance of high-quality and differentiated instructional materials is usually included in studies of the importance of high expectations and challenging curriculum. Also important is that one of the preferred working conditions for teachers is the availability and access to quality curriculum materials and technology.²⁶ Ninety-two percent of Texas teachers say such access is either absolutely essential or very important to teacher retention, according to a state-by-state survey conducted by the Bill and Melinda Gates Foundation in 2010.²⁷ No matter how fine a curriculum may be, teachers cannot deliver it with fidelity without the necessary instructional materials and technology. Here again is an area where money makes a huge difference in student learning.

Another area where budget cuts were made in 2011-2013 was in technology. According to Moak and Casey (2012, January), \$271 million in the technology allotment was eliminated.²⁸ Stutz reported the following:

School districts have sharply scaled back their spending on technology in large part because of big funding cuts imposed by the Legislature, financial reports from the Texas Education Agency show. Expenditures on laptops, desktops, portable computers and related hardware have been reduced to about a tenth of what was spent last year, and school districts have used only 4 percent of their state aid for instructional materials on technology this year.²⁹

Researchers generally find positive effects for the use of technology in instruction as having the potential to transform instruction so that it is not only more effective, but also so that learning is extended beyond the school day. Studies show that technology can

- Make true individualization possible at least part of the school day,
- Facilitate acceleration of learning,
- Change the role of teachers to learning coaches,
- Make rich diagnostic assessments accessible, and
- Be a source for innovations needed to create 21st century schools.³⁰

Technology implementation requires significant investments in hardware, software, infrastructure, professional development, maintenance, Internet access, and support services. It is important, therefore, for stakeholders to know how effective it is in improving student learning. Among the findings are the following:

- Computer-assisted instruction is most effective and yields the greatest outcomes when the school provides sufficient technical support, when the software is properly integrated into the curriculum, and when the software is implemented in a high-use pattern.³¹
- A review of studies from 1993-2000 on the effectiveness of computer-assisted instruction found evidence of a positive association between use of technology and student achievement in reading and mathematics, especially in the early and middle grades and for those with disabilities.³²
- A 2000 study found significant gains in achievement across the curriculum when students from preschool through high school were taught in a technology-rich environment.³³
- Using computers to solve simulations significantly improved math scores.³⁴
- Computer technology improves the development of higher-order skills of critical thinking, analysis, and scientific inquiry.³⁵
- Computer technology is a powerful tool for teaching limited-English proficient students.³⁶
- Teachers' use of data in making instructional decisions improve student learning.
 Technology plays a vital role in enabling data-driven decision-making.³⁷
- So-called "blended instruction," a combination of face-to-face and online instruction, produces greater learning than face-to-face only or online only.³⁸
- More time-on-task in online courses produces the most positive outcomes.³⁹

Teachers who are effective in improving the achievement of disadvantaged children tend to use technology to target instruction more effectively; to incorporate a variety of strategies; to support teacher-guided instruction; to facilitate remediation and reinforcement; to promote advanced thinking strategies; to increase access to resources; to motivate students; and to meet the needs of the whole child.⁴⁰

For those who see technology as a way to eliminate teachers and, therefore, radically reduce the cost of education, the research results are clear: do not go there. First, the research on teacher effectiveness is substantial, and it is conclusive about how important the teacher is in promoting student achievement, especially for students who are economically disadvantaged (see Chapter III: Quality Teachers Matter). There is no doubt that every child deserves and needs the best possible teacher every day.

Second, research is building that "blended learning" has larger effect sizes than teacher-only or technology-only approaches. When students have access to both in a meaningful program, then they have the best of both worlds, plus the benefits of synergy.

Third, there is mounting evidence that distance learning is not an effective approach for educating the vast majority of American children. In Hattie's reports on meta-analyses of studies relating to student achievement, he found "the use of resources, such as adjunct aids and computers, can add value to learning." However, the findings, he says, are persuasive: "It is the differences in the teachers that make the difference in student learning..., and the use, or not, of technologies (such as distance learning) does not show major effects on learning if there is no teacher involvement."⁴¹

A new study was published by the National Education Policy Center in July 2012 on the achievement of children enrolled in the nation's largest virtual school program, K12 Inc. The findings are clear, according to Miron, the lead author:

Children who enroll in a K12 Inc. cyberschool, who receive full-time instruction in front of a computer instead of in a classroom with a live teacher and other students, are more likely to fall behind in reading and math. These children are also more likely to move between schools or leave school altogether—and the cyberschool is less likely to meet federal education standards.⁴²

Progress Texas issued a report in May 2012 exposing the low achievement of Texas students in the state-funded virtual schools, including outsourcing to K12 Inc. Currently, with funding

continuing since 2007, there are more than 8,000 students enrolled. In the same bill that cut \$5.4 billion from public schools across the state, the Texas Virtual Academy got more money—now the same amount per student as those in regular schools. Also of interest is the lobby that urged passage of the bill creating the Texas Virtual Academy and argued they could educate children for half the cost of a bricks and mortar school, and state leaders approved the bill, ignoring all the research that predicted lower academic outcomes for students in such settings, especially for disadvantaged students. Today, the virtual school not only produces an Unacceptable accreditation rating for two consecutive years, but it also costs just as much per student or more than a typical school costs.⁴³

One of the models for incorporating "blended learning" into a school's program is a set of principles called Universal Design for Learning (UDL). The original concept came from special education, but educators in general now see the advantages of such materials with all kinds of students. UDL's purpose is to design both lesson presentations and instructional materials flexibly so that they accommodate all the different ways that students learn and make content more accessible and comprehensible. The three design principles are as follows:

- Provide multiple, flexible methods of presentation that give students various ways to acquire information.
- Provide multiple, flexible methods of expression that offer students alternatives for demonstrating what they know.
- Provide multiple, flexible options for engagement to help students get interested, be challenged, and stay motivated.⁴⁴

UDL is included in the most recent reauthorization of the Individuals with Disabilities Education Act (IDEA) and in the draft proposals for the reauthorization of the Elementary and Secondary Education Act (ESEA), or what we now know as NCLB. As these principles are more widely adopted, funding will be required for the development of both low-tech and high-tech materials, for teachers' professional development in their use, for purchase and maintenance, and for evaluation of their effectiveness.

Setting high expectations and creating challenging curriculum require more than policies or laws. They require resources for all the opportunities to learn that may be required for Texas's 5,000,000 children—all of them—to meet those expectations by mastery of the curriculum. Graduating a student with college- or workforce-readiness⁴⁵ begins when the child is born. The longer we wait to ensure a child is on a positive developmental track, the less chance we have to prevent failure. In the words of John Dewey, "What the best and wisest parent wants for his own child, that must the community want for all of its children. Any other ideal for our schools is narrow and unlovely; acted upon, it destroys our democracy."⁴⁶

ENDNOTES

- 1. Rosenthal, R. & Jacobsen, L. (1968). Pygmalion in the classroom: Teacher expectation and pupils' intellectual development. New York City, NY: Holt, Rinehart, and Winston.
- 2. Edmonds, R. (1979). Effective schools for the urban poor. Educational Leadership, 37(1), 15-18, 20-24.
- Marzano, R. J. (2003). What works in schools: Translating research into action. Alexandria, VA: Association for Supervision and Curriculum Development, pp. 35-37. See also National Council of Teachers of Mathematics (n.d.). High expectations. A position of the National Council of Teachers of Mathematics. Reston, VA: National Council of Teachers of Mathematics. Retrieved July 20, 2012, from <u>http://www.nctm.org/about/content.aspx?id=31777</u>.
- 4. Hattie, J. (2009). Visible learning: A synthesis of over 800 meta-analyses relating to achievement. New York City, NY: Routledge, pp. 121-128.
- Delpit, L. (2012). "Multiplication is for white people": Raising expectations for other people's children. New York City, NY: The New Press, p. 77. See also Irvine, J. J. & Fraser, J. (1998, May 13). "Warm demanders." Education Week, 42, 56.
- 6. Darling-Hammond, L. (2010). The flat world and education: How America's commitment to equity will determine our future. New York City, NY: Teachers College, Columbia University, p. 2.
- 7. Darling-Hammond, L. (2010). See note 6.
- 8. Darling-Hammond, L. (2010). See note 6.
- 9. Darling-Hammond, L. (2010), pp. 2-3. See note 6.
- 10. Darling-Hammond, L. (2010), p. 3. See note 6.
- 11. Texas Education Agency (2012, June 8). Initial STAAR results released. TEA News Releases Online. Retrieved June 12, 2012, from http://www.tea.state.tx.us/index4. aspx?id=2147507166.
- 12. Texas Education Agency (2012, June 8), p. 2. See note 11.
- Farkas, G. (2011). Middle and high school skills, behaviors, attitudes, and curriculum enrollment, and their consequences. In G. J. Duncan & R. J. Murname (Eds.), Whither opportunity: Rising inequality, schools, and children's life chances (pp. 71-90), New York City, NY: Russell Sage Foundation and Chicago, IL: Spencer Foundation, p. 78.
- 14. Reardon, S. F. (2011). The widening academic achievement gap between the rich and the poor: New evidence and possible explanations. In G. J. Duncan & R. J. Murname (Eds.), Whither opportunity: Rising inequality, schools, and children's life chances (pp. 91-115), New York City, NY: Russell Sage Foundation and Chicago, IL: Spencer Foundation, p. 92.
- 15. Reardon, S. F. (2011), pp. 92-93. See note 14.
- 16. Reardon, S. F. (2011), p. 100. See note 14.
- 17. Hightower, A. M. (2012, January 12). On policy, student achievement, states pressing to measure up. Quality Counts. Education Week, 31(16), p. 53.
- 18. Boser, U. & Rosenthal, L. (2012, July 10). Do schools challenge our students? What student surveys tell us about the state of education in the United States. Washington, DC: Center for American Progress, p. 2.
- 19. Boser, U. & Rosenthal, L. (2012, July 10), pp. 2-4. See note 18.
- 20. Dillon, S. (2006, March 26). Schools cut back subjects to push reading and math. The New York Times. Retrieved July 22, 2012, from http://www.nytimes. com/2006/03/26/education/26child.html?pagewanted=all . FairTest (n.d.). National standards effort moves ahead, creates backlash. FairTest. Retrieved July 22, 2012, from http://fairtest.org/national-standards-effort-moves-ahead-creates-back. Texas school districts have been encouraged to adopt a uniform curriculum that is aligned with the state curriculum standards (TEKS) and assessment objectives, along with scope and sequence, and pacing guides for the four core subject areas. Many teachers object strongly to CSCOPE. See Gulick, J. (2010, August 15). New curriculum system CSCOPE to bring big changes to schools in Lubbock, across state. Lubbock Avalanche-Journal. Retrieved July 22, 2012, from http://www.cscope.us/parentportal/docs/article_on_cscope_in_lubbock_isd.pdf . See also the webpage for CSCOPE: http://www.cscope.us/staar.html .
- 21. Darling-Hammond, L. (2010), p. 283. See note 6.
- 22. Darling-Hammond, L. (2010), pp. 283-285. See note 6.
- 23. EPE Research Council (2011, June 9). Graduation policies for the class of 2011. Education Week, 30(34), p. 28.
- Texas Education Agency (2011, July). Secondary school completion and dropouts in Texas public schools, 2009-10. Austin, TX: Texas Education Agency, pp. 71-72.
 Texas Education Agency (2011, July), p. 72. See note 24.
- 26. Horng, E. L. (2009, September). Teacher tradeoffs: Disentangling teachers' preferences for working conditions and student demographics. American Educational Research Journal, 46(3), 690-717.
- 27. Bill and Melinda Gates Foundation (2010). Primary sources: America's teachers on America's schools. Scholastic and the Bill and Melinda Gates Foundation. Retrieved June 1, 2010, from http://www.scholastic.com/primarysources/download.asp.
- 28. Whitsett, M., Moak, L. M., & Carney, D. (2012, January). Dollars and sense: Themes for accountability in the 83rd legislature. Presentation made at TASA's Mid-Winter Conference, Austin, Texas.
- 29. Stutz, T. (2012, March 18). Texas schools slash spending on technology. Dallas Morning News. Retrieved August 6, 2012, from http://www.dallasnews.com/news/education/headlines/20120318-texas-schools-slash-spending-on-technology.ece .
- 30. Hattie, J. (2009). Visible learning: A synthesis of over 800 meta-analyses relating to achievement. New York City, NY: Routledge. Christensen, C. M., Horn, M. B., & Johnson, C. W. (2008). Disrupting class: How disruptive innovation will change the way the world learns. New York City, NY: McGraw Hill. Center for Policy Studies and Hamline University (2008, February). The other half of the strategy: Following up on system reform by innovating with school and schooling. Retrieved March 22, 2010, from http://www.educationevolving.org/pdf/Innovatingwithschooling.pdf . Dede, C. (2010, June 2). Transforming schooling via the 2010 National Educational Technology Plan. Teachers College Record. Retrieved July 16, 2010, from http://www.tcrecord.org/PrintContent.asp?/ContentID=15998.
- Macaruso, P. & Hook, P. E. (2007, Summer). Computer assisted instruction: Successful only with proper implementation. Perspectives on Language and Literacy. The International Dyslexia Association. Retrieved March 10, 2010, from <u>http://www.lexialearning.com/files/IDAPerspectives_Implementation.pdf</u>.
- North Central Regional Educational Laboratory (NCREL) (2005). Critical issue: Using technology to improve student achievement. Retrieved May 1, 2008, from http://ncrel.org/sdrs/areas/issues/methods/technlgy/te800.htm.
- 33. North Central Regional Educational Laboratory (NCREL) (2005). See note 32.
- 34. North Central Regional Educational Laboratory (NCREL) (2005). See note 32.

- 35. North Central Regional Educational Laboratory (NCREL) (2005). See note 32.
- 36. North Central Regional Educational Laboratory (NCREL) (2005). See note 32.
- 37. North Central Regional Educational Laboratory (NCREL) (2005). See note 32.
- 38. Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones (2009). Evaluation of evidence-based practice in online learning: A meta-analysis and review of online learning studies. United States Department of Education. Retrieved March 9, 2010, from http://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf . Nagel, D. (2009, July 1). Meta-analysis: Is blended learning most effective? THE Journal. Retrieved July 13, 2010, from http://bear.analysis-IS-Blended-Learning-Most-Effective . Watson, J. (n.d.). Blended learning: The convergence of online and face-to-face education. North American Council for Online Learning. Retrieved March 20, 2010, from http://www.inacol.org/research/promisingpractices/NACOL_PP-BlenededLearning-Ir.pdf .
- 39. Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones (2009). See note 38.
- 40. Cavanaugh, C., Gillan, K. J., Kromrey, J., Hess, M., & Blomeyer, R. (2004, October). The effects of distance learning on K-12 student outcomes: A meta-analysis. Learning Point Associates, p. 14. Retrieved March 20, 2010, from http://www.ncrel.org/tech/distance/index/html.
- 41. Hattie, J. (2009), p. 236. See note 4.
- Miron, G. & Urschel, J. (2012, July). Understanding and improving full-time virtual schools. Boulder, CO: National Education Policy Center, School of Education, University of Colorado Boulder. National Education Policy Center (2012, July). Report shows students attending K12 Inc. cyber schools fall behind. Retrieved July 22, 2012, from <u>http://nepc.colorado.edu/newsletter/2012/07/understanding-improving-virtual%20</u>. See also related article in Quillen, I. (2012, March 15). Marketplace adjustments. Education Week 31(25), pp. 28-29.
- 43. Martin, P. (2012, May). Invisible schools, invisible success: How ALEC promotes virtual school profits over state standards and student success. Progress Texas. Retrieved June 16, 2012, from http://www.scribd.com/doc/94436041/Invisible-Schools-Invisible-Success. See also the website for the Texas Virtual Academy at http://www.scribd.com/doc/94436041/Invisible-Schools-Invisible-Success. See also the website for the Texas Virtual Academy at http://www.scribd.com/doc/94436041/Invisible-Schools-Invisible-Success. See also the website for the Texas Virtual Academy at http://www.scribd.com/doc/94436041/Invisible-Schools-Invisible-Success. See also the website for the Texas Virtual Academy at http://www.kl2.com/txva/home. Rapoport, A. (2011, October 10). Virtual schools, virtually unregulated? After a technical switch, a virtual school gets around accountability standards. Texas Observer. Retrieved July 23, 2012, from http://www.texasobserver.org/virtual-schools-virtually-unregulated.
- 44. Samuels, C. (2007, Oct. 31). "Universal Design" concept pushed for education. Education Week. Retrieved July 25, 2012, from http://www.edweek.org/ew/articles/2007/10/31/10udl.h27.html. Rose, D. H. & Meyer, A. (2002). Teaching every student in the digital age: Universal design for learning. Alexandria, VA: Association for Supervision and Curriculum Development.
- 45. McAlister, S. & Mevs, P. (2012). College readiness: A guide to the field. Brown University, Anneberg Institute. Gewertz, C. (2010, January 14). College and the workforce: What "readiness" means. Education Week, 29(17), pp. 24-25.
- 46. Dewey, J. (1915). The school and society. Chicago, IL: University of Chicago Press, p. 3.

Yes, Money Still Matters

There is no lack of evidence that money matters, and we know that opportunities to learn are where it matters the most. Research confirms quality teachers, small classes, preschool, interventions for struggling learners, high expectations, and challenging curriculum, along with adequate instructional materials and technology do, indeed, improve student learning and adult success. Economists verify improved learning results in very large returns on investment.

There is no lack of evidence Texas faces some major challenges. With 60 percent of its students eligible for the free/reduced meal program, there is clearly a need to provide the best education possible in order to assure improved academic achievement and opportunities for social mobility—and to ensure a bright and prosperous future for all Texans.

Sadly, there is also no lack of evidence Texas has a broken school funding system and low funding is strongly related to low achievement outcomes. The system for funding schools is inadequate. It is inequitable. It is outdated. We can fix that quickly if we will unite behind doing what is best for the children. We cannot provide the resources that the children need without an improved system. We cannot improve student learning without an improved system. We cannot reduce the costs of social programs in our state without more educated citizens. We cannot recruit high-paying businesses to our state without an educated workforce. We will not appreciably increase tax revenues without more people making more money. There is something in this plan for everyone. We just need to do the right thing.

Diane Ravitch, a former Texan, is a distinguished education scholar, and she served with Secretary Lamar Alexander in the Department of Education during President George H. W. Bush's administration. In recent years she has become one of the most vocal, visual, and positive advocates for public education. She has written a best-selling book, she Tweets every day, she is a speaker at just about every education conference that matters, and she is fearless. Her words cannot be improved upon as a conclusion to Money Still Matters—for Our Children and for the Future of the Great State of Texas: Our schools cannot be improved by those who say that money doesn't matter. Resources matter, and it matters whether they are spent wisely. The best-informed and most affluent parents make sure to enroll their children in schools that have small classes, a broad curriculum in the liberal arts and sciences, well-educated teachers, and well-maintained facilities. Ample resources do not guarantee success, but it is certainly more difficult for schools to succeed without them. If we are serious about narrowing and closing the achievement gap, then we will make sure that the schools attended by our neediest students have well-educated teachers, small classes, beautiful facilities, and a curriculum rich in the arts and sciences.

Our schools cannot be improved if we ignore the disadvantages associated with poverty that affect children's ability to learn. Children who have grown up in poverty need extra resources, including preschool and medical care. They need small classes, where they will get extra teacher time, and they need extra learning time....

Our schools cannot be improved if we use them as society's all-purpose punching bag, blaming them for the ills of the economy, the burdens imposed on children by poverty, the dysfunction of families, and the erosion of civility. Schools must work with other institutions and cannot replace them.¹

All that is needed at this juncture in Texas history is for those who lead to do what is right. Martin Luther King, Jr. provides the inspiration:

On some positions, Cowardice asks the question, "Is it safe?" Expediency asks the question, "Is it politic?" And Vanity comes along and asks the question, "Is it popular?" But Conscience asks the question, "Is it right?" And there comes a time when one must take a position that is neither safe, nor politic, nor popular, but he must do it because Conscience tells him it is right.²

That time is now!

ENDNOTES

- 1. Ravitch, D. (2010). The death and life of the great American school system: How testing and choice are undermining education. New York City, NY: Basic Books.
- 2. King, M. L. (1968). Remaining Awake Through a Great Revolution. Speech. Retrieved July 25, 2012, from http://en.wikiquote.org/wiki/Martin Luther King, Jr.


1220 Colorado Street, Suite 300 Austin, TX 78701

512.478.7313 (phone) 512.478.6433 (fax) info@equitycenter.org

www.EquityCenter.org