

## **Special Education Expenditures in South Texas public schools during a period of changing enrollment**

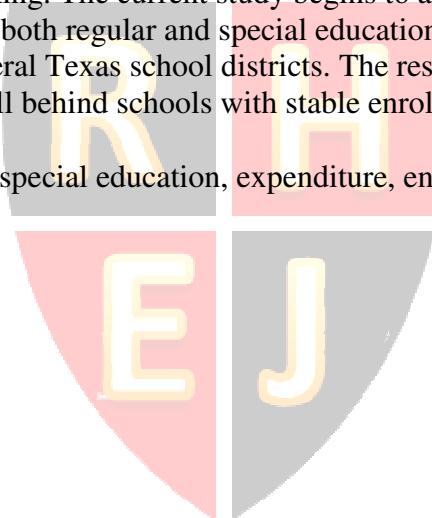
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### **ABSTRACT**

Educational expenditures continue to be a topic of discussion and concern for educators, politicians, and families. The impact of school expenditures has long been debated, but recent evidence links increased expenditures to better post-academic outcomes, especially for students from lower socio-economic backgrounds. To date, this research has not been extended to special education students. Indeed, the amount of research on the effect of special education expenditures is remarkably lacking. The current study begins to address this gap by examining the increase of expenditures on both regular and special education students during a time when enrollment was growing in several Texas school districts. The results showed that schools with increased student enrollment fell behind schools with stable enrollment.

Keywords: education, funding, special education, expenditure, enrollment



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## INTRODUCTION

As educators in the state of Texas strive for the attainment of higher educational goals in public schools, social and economic factors in the state have continued to shift. According to Texas Education Agency records, total enrollment for the state from the 1999-2000 school year to the 2015-2016 school year increased from 3,991,783 to 5,299,728. From 2005-2006 to 2015-2016, the 20 different regions served by the state's education service centers experienced enrollment changes ranging from a loss of 5.5% to a gain of 31.4%. Three regions experienced an enrollment gain of 3% or less. (Enrollment in Texas Public Schools 2015-2016, 2016)

School districts in the “urban triangle” of Texas (Dallas/Fort Worth, San Antonio, Houston) and the lower Rio Grande Valley continued to experience growing or steady school enrollments while student numbers in other districts declined. Special challenges developed for school districts experiencing declining levels of enrollment as well as those experiencing fast growth.

This variation in enrollment, at a time when the state gained more than 1.3 million students, indicated that all school districts did not face the same challenges. This situation created a need to investigate these changes in enrollment in relation to the funds spent for educational programs for Texas schools.

## RELATED LITERATURE

Questions and concerns about the *Four Pillars of Education Finance*: equity, efficiency, liberty, and adequacy (Rolle and Houck, 2004) can increase when a school system is dealing with changing enrollment. Although some believed that declining enrollments could be handled through more efficient management (Fullerton and Roza, 2015), others acknowledged that “This financial hemorrhage usually results in deep cuts in programs, staff, and resources” (Jimerson, 2006). Beeson (2001) listed enrollment decline as a major challenge facing principals in rural schools, along with consolidation and busing, teacher shortages, funding inequities, and declining facilities. She reported that since most school funding formulas were based on average daily enrollment, more often than not, rural schools with declining enrollments were forced to cut programs, staff, or both. On the other hand, rising enrollments also brought special needs in the area of planning and management. McCord (1997) listed several strategies for utilizing existing facilities, including innovative scheduling, varied attendance plans, offsite learning, year-round schooling, the use of portable buildings, and enlarged classes. O’Neil and Adamson (1993) had similar recommendations, along with alternative scheduling.

### Trends

Efforts were clearly made nationally to keep costs down according to the National Center for Educational Statistics (2015) which reported that the total number of full time equivalent (FTE) elementary and secondary teachers in the U.S dropped by less than 1% from 2005 to 2015. At this same time, enrollment during that period increased 2%. There was also a decrease in teacher compensation reported. Adjusting for inflation, teachers were reported to be making 2% less during the 2014-15 school year than they were in 1990-91.

While the number of teaching positions and salaries were slightly behind enrollment growth, there were rising costs in other areas. Goldenberg, Kunz, Hamburger, and Stevenson

(2003) reported that, "Rising costs for education in America is largely related to significant increases in services for special populations- those with disabilities and those with limited English proficiency. Additional substantial cost increases over the years are related to nutritional programs, deteriorating schools and the need to provide additional social services through the school, mostly to poor students. These student populations are unlikely to be those that increase standardized test scores, scores on which the schools are frequently evaluated.

## Educational Programs

While average daily attendance is the first factor considered in determining the funding of a school district in Texas, the state provided funding for several educational programs that have higher costs associated with them because they apply greater weight to the funding for the time students spend in those programs. These programs are listed in 29 Tex. Educ. Code § 29.001. (2007). The education of students with learning disabilities was addressed in Subchapter A, Special Education Program, Sec. 29.001. Statewide Plan:

The agency shall develop, and modify as necessary, a statewide design, consistent with federal law, for the delivery of services to children with disabilities in this state that includes rules for the administration and funding of the special education program so that a free appropriate public education is available to all of those children between the ages of three and 21.

## Rationale for the Study

This study investigated the changes in three budget categories compared to enrollments in educational programs in school districts in Texas. It was important to determine whether funding was at appropriate levels after enrollment changes occur, so that adequate funding was provided for every level of education. This was the only way to assure that demographic changes did not result in losses of educational opportunities.

Basic funding for schools was based on average daily attendance (ADA). Programs such as special education were assigned a greater weight than regular education through the Texas school finance formula, thus generating more dollars for school districts according to the number of students in these programs. These weighted funds covered the costs associated with these specific programs and not general education-related costs. This study examined how the changes in the amounts of monies provided by these weighted funds impacted school district budgets during periods of changing enrollments.

## Purpose of the Study

The purpose of this study was to determine how budgets of Texas school districts experiencing increasing enrollments were influenced by the changes, as opposed to districts with steady enrollments. These school budgets had to meet the educational needs of the students being served. This study identified how schools were expending funds to meet those needs while dealing with enrollment changes.

## Problem Statement

Texas public schools must provide quality educations for the students enrolled. Standards were raised and more subjects tested in an effort to assure that schools provide quality educations. However, at the same time that schools were expected to produce an increasingly better product, enrollment changes impacted the level of funding and the way the funds were budgeted (Texas Education Agency Summary of Finance, 2004-2014).

Some areas of the state experienced declines in enrollments while other areas experienced rapid growth. As the demographics changed in these areas, school officials have seen changes in the funds available per student for general education expenses as well as changes in the availability of funds for specific educational programs. This raised an important question: Did changes in funds budgeted for schools impact the availability of funds differently between growing and stable school enrollments? This issue must be resolved to assure proper funding for all students' educations in an ever-diversifying state.

## Research Question

This study described the changes in education funding by program in Texas public school districts between the years 2004 and 2014. One question guided the study:

Is there a difference in the composite change in per-student budgets for special education as compared to the overall per-student budget between districts whose average daily attendance has increased or remained stable?

## Definitions of Terms

- Average daily attendance (ADA) -- The quotient of the sum of attendance for each day of the minimum number of days of instruction divided by the minimum number of days of instruction.
- Categorically funded programs -- Educational programs that are funded with monies that are to be used specifically for those programs. This funding is usually generated by the number of students who qualify for these programs or actual student contact hours in these programs.
- Full time equivalent (FTE) -- Thirty hours per week of contact (classroom) time for one student for the duration of a school year. One full-time student equals one FTE. Six students for one hour per day (30 hours per week) or any combination equaling thirty student contact hours per week is one FTE.
- General education costs -- All costs associated with operating a school except those funded by specific categorical funds.
- Increasing enrollment -- The overall average daily attendance in a school district has increased or grown larger in number by 5% or more.
- Nondiscretionary costs -- Costs incurred by a school district that are not optional and must be paid. The administration has no discretion as to whether or not these costs can be avoided or eliminated.
- Special education -- An educational program for students requiring a special instructional arrangement because of a disability.
- Stable enrollment -- The overall average daily attendance in a school district has neither declined nor increased by 5% or more.

- Weighted average daily attendance (WADA) -- The sum of average daily attendance and special weighted values assigned for students in special categorically funded programs.

## Limitations

The purpose of this study was to determine the effects in funding of categorical programs by enrollment changes for 42 Texas school districts that were in the region that is served by Education Service Center 2, in the Coastal Bend area of Texas. The typical characteristics sought were participation in the state funding system, tax levies on local property values, students who reside in homes with families or guardians, and large enough enrollments that attendance changes would be reflected in financial changes and not be masked by funding formulas designed to provide financial stability for the smallest districts. This resulted in the following limitations being placed on the sample group:

1. This study was limited to public school districts in Region 2 in Texas with the following exceptions: charter schools, schools for the incarcerated, residential schools, school districts that did not have local tax bases.
2. This study was limited to those school districts that had a refined average daily attendance of 130 students or more for the 2013-2014 school year. Special elements in the state education funding system provide financial stability to the smallest schools that could minimize financial fluctuation when enrollment fluctuation may be occurring.
3. For purposes of this study, only total student numbers from educational programs were used. Example: Special education was not broken down into categories such as self-contained, speech, or homebound. Only the total of all adjusted special education FTEs were used.
4. Only special education was analyzed.

## Data Collection

Data were collected from the Texas Education Agency summary of finances for the Region 2 districts from the 2003-2004 and 2013-2014 school years. The amounts of total funds budgeted along with the amounts of funds budgeted for special education were collected for each school district.

## Data Analysis

After the data were collected, the total amount budgeted for each district was divided by the number of students in average daily attendance to determine the per-student amount budgeted. The amount in the budget for the special education program was divided by the total number of full time equivalent (FTE) students from the program to determine the per-student amount budgeted for special education. This procedure was applied to the data collected for both the 2003-2004 and the 2013-2014 school years. The per-student amounts from 2013-2014 were divided by the per-student amounts from 2003-2004. The change in the per-student amount from the total budget was then compared to the change in the per-student amount from the special education program budgets to determine the change in per-student special ed. program budgets from the overall per-student budget.

For each of the forty two Region 2 school districts, the percentage of the total 2003-2004 budget that was appropriated special education was determined. The same calculation was done

for each district for the 2013-2014 school year. Districts were then categorized by enrollment change over the 10-year period. Those with an increase of more than 5% were classified as increasing. Those with enrollments increasing or decreasing 5% or less were classified as stable. The data was then analyzed using both increasing and stable districts. Districts that had enrollment losses of over 5% were not included in this study. The independent variables (IV) were identified as the group in which a district was classified.

It was then determined if the schools in each category had experienced changes in the percentages of the total expenditures for special educational, and how that change compared to the percentage of change in enrollment for the 10-year period. The dependent variable (DV) was the percentage of change between the 2003-2004 and 2013-2014 school years for the special education program budget, as compared to the overall budget.

There were 7 districts with increasing enrollments. The increases ranged from Bishop Consolidated ISD's increase of 9.1% to Tuloso Miday ISD's increase of more than 6.9%.

There were 10 districts classified as having stable enrollments. The changes ranged from Ben Bolt-Polito Blanco ISD's decline of 4.77% to Gregory-Portland ISD's increase of 4.5%.

The total expenditures from the 17 school districts were divided by the ADA (average daily attendance) of each to determine the total per-student expenditures. This was done for the 2003-2004 and the 2013-2014 school years. The expenditures for each district from 2013-2014 were divided by the expenditures for each district from 2003-2004 to determine the percentage change over the 10-year period. As an example, Aransas County ISD had an increase in spending per ADA from \$5,073 to \$14,613. Dividing \$14,613 by \$5,073 results in 2.88, which is an increase of 1.88 or 188%. This same school district had an increase in special ed. spending per special ed. FTE (full time equivalent student) from \$4,220 to \$18,827. The resulting increase from \$18,827 divided by \$4,220 was 4.46, or an increase of 3.46 or 346%. When one compares the increase of 188% in overall spending per student to the 346% increase in special ed. spending per student it is clear that special ed. per student spending increased at a greater rate than overall per student spending.

## Findings

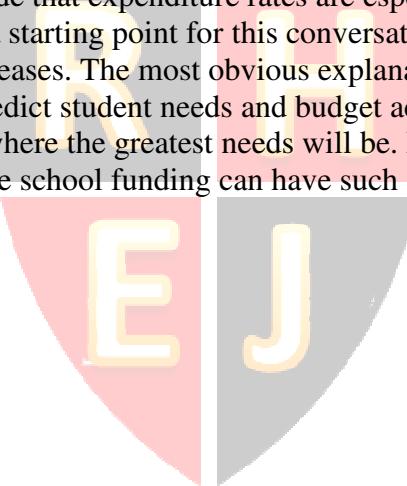
Because of the small sample size, the data were analyzed using the Mann-Whitney U-test, a nonparametric Procedure for comparing two independent samples. Nonparametric procedures are appropriate when sample sizes are small because they are not based on the assumptions of normalcy that underlie parametric procedures. The results showed a significant difference between the expenditures for special education between the schools with increasing enrollment and those with a stable level of enrollment,  $u = 15$ ,  $z = 1.90$ ,  $p = .028$ . The schools with a stable enrollment had a greater percentage increase ( $M = 1.397$ ,  $SE = .151$ ) than schools with an increasing enrollment ( $M = .947$ ,  $SE = .152$ ). Overall, increase in school enrollment seemed to have a detrimental effect on special education expenditures, as indicated in Table 1 (Appendix A).

## Discussion

This study examined the difference in spending on special education as compared to the overall school budget depending on whether the size of enrollment was increasing or remaining stable. The results indicated that schools with stable enrollment showed a greater percentage increase of spending on special education. As a result, it is likely that services at those schools are retaining availability and quality or even increasing in these aspects. In contrast, schools who have increasing enrollments are not keeping pace with the expenditures for special education.

Although there remains some question about the impact of school spending on educational outcomes, there is ample evidence to support the need for better financing in the educational system. For example, a long-term study by Jackson, Johnson and Persico (2015) found that a 10 percent increase in per-pupil spending each year over a 12-year period resulted in 7.25 percent higher wages and a 3.67 percentage decrease in adult poverty for graduates. Furthermore, the results were more pronounced for students from families with lower SES. The authors concluded that spending increases were associated with improved school quality, reduction of student-to-teacher ratio, and more lucrative teacher salaries. Although these findings have not yet been extended to special education, Battisti, Friesen and Hickey (2012) argued that lower levels of funding for special education could cause marginal students to miss out on interventions that could lead to higher academic achievement and better long-term outcomes as adults. Consequently, unequal levels of expenditure for special needs students can result in poorer outcomes. Given that Jackson, Johnson and Persico (2015) showed that increased expenditures have the most impact on the students with the higher level of need, it is reasonable to conclude that expenditure rates are especially important for special education.

The current study provides a starting point for this conversation by demonstrating that schools the gap in expenditures as enrollment increases. The most obvious explanation for the difference is that schools with stable enrollment are better able to predict student needs and budget accordingly. When enrollment is increasing, it becomes more difficult to see where the greatest needs will be. However, schools must make steps to address this problem given that adequate school funding can have such a strong impact on the futures of the students who are most at risk.



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## Appendix A

Table 1. Changes in Expenditure

Change in Total Expenditures per ADA	Change in Sp. Ed. Expenditures 04-14	Difference
<b>INCREASING ENROLLMENTS</b>		
3.41311783	3.589875639	1.051787784
2.427618731	4.305355276	1.773489066
2.319375137	1.84616463	0.795975002
2.092160135	1.255899027	0.600288193
1.917354185	1.150787133	0.600195385
2.168659491	2.065485384	0.952424939
2.282178225	1.94399952	0.851817574
<b>STABLE ENROLLMENTS</b>		
2.335373923	3.109384656	1.331429038
2.880280098	4.460516321	1.548639775
2.384443312	4.0251847	1.688102493
2.70694985	3.648704087	1.347902359
2.290648597	2.889945232	1.261627486
2.707355856	3.388593823	1.251624834
2.521210195	2.193582921	0.870051583
2.072307655	5.20928678	2.513761298
2.236635461	3.055470567	1.366101281
2.201693607	1.742981208	0.791654753