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Perspective



School District Consolidation and Public School Efficiency

What Does the Research Say?

by Chris Patterson, research director and director of the Center for Education Policy Studies

The Texas Supreme Court recently warned that fundamental changes are required to ensure the state system of public education will continue to fulfill constitutional requirements.¹ Ruling on West Orange-Cove, the court observed, “There is substantial evidence... that the public education system has reached the point where continued improvement will not be possible absent significant change, whether that change take the form of increased funding, improved efficiencies, or better methods of education.”²

Improving public school efficiency poses a substantial challenge for Texas. The Supreme Court ruling notes that the large number of school districts makes it difficult for districts to produce educational results without waste, and no economies of scale can be achieved when districts, particularly small districts, duplicate staffing, facilities, and administration.³

School district consolidation has long been perceived as the best way to improve the efficiencies of public schools. However, research furnishes little evidence that consolidation controls costs or improves academic achievement. This report describes the research and identifies an alternative to district consolidation that offers promise for improving the efficiency of Texas public schools.

History of Consolidation

Over the past 100 years, the business world has held that larger organizations can operate more efficiently than smaller organizations, believing that increasing size should decrease unit costs. Although recent research stimulates questions about economies of scale

in business, particularly for labor-intensive organizations,⁴ this thinking has strongly influenced education reform for many years.

Early in the 20th century, education reformers seized on the idea of school consolidation, particularly in rural areas, as the best way to lower costs, increase administrative expertise, and ensure student access to qualified teachers, specialized programs, and adequate facilities. In the 50 years between 1930 and 1980, the number of school districts in the United States declined from almost 120,000 to 15,000 (a number that remains unchanged from 1980 through the present).⁵ During approximately the same period, the number of schools fell in the U.S. from over 225,000 to less than 100,000.⁶ Despite a 70 percent increase in the nation’s population, the number of school districts decreased by 87 percent and the number of schools decreased by 69 percent.⁷

Worth noting is that as the number of school districts in the nation declined more than 60 percent from 1960 to 1984, school administration grew 500 percent, while the number of principals grew 79 percent, and the number of teachers only grew 57 percent.⁸

Efforts to improve educational efficiency in Texas mirror those across the nation. From 1936 to 2005, the number of school districts declined from 6,953 to 1,037.⁹ Large schools and districts now dominate the educational landscape. Twenty-six percent of students in Texas public schools attend districts with more than 50,000 students today,¹⁰ and almost half of public school students attend districts with an enrollment exceeding 25,000.¹¹ District size continues to grow;

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from 1992 to 2005, the percentage of students in districts enrolling no less than 25,000 students increased almost 10 percent.¹²

Shrinkage of Texas School Districts, 1935-2005

Year	# Districts	# Students
2004-05	1,037	4,383,871
1994-95	1,045	3,670,196
1991-92	1,050	3,460,378
1978-79	1,099	3,012,201
1955-56	1,858	3,117,926
1935-36	6,953	Unknown

Source: Texas Education Agency, Snapshots 1992, 1995 & 2005; Texas Education Agency Biennial Report 1978-1980; and Texas Education Agency Annual Statistical Report 1952/53-1955/56; 29th Biennial Report, State Department of Education 1934-1935 and 1935-1936; and 13th Biennial Report of the Superintendent of Instruction 1900-1901.

Consolidating Schools & Districts: The Research

Consolidation of schools and districts represents one of the most comprehensively researched aspects of public education reform, with research spanning over 50 years. A few early studies of consolidation, published in the 1970’s, confirmed assumptions about the economies of scale; some early studies found evidence that reduced per pupil expenditures translated into greater student achievement, as saved money was targeted toward improving student learning.¹³ Although, it is important to note that subsequent studies failed to replicate this finding.¹⁴

With few exceptions, research describes the economic and educational advantages of large schools and districts as exaggerated, and in many studies there is evidence that consolidation worsened financial, academic, and social outcomes. Not all research agrees that consolidation yields little benefit or adverse outcomes; there are several studies demonstrating positive results.¹⁵

While evaluating consolidation, researchers became aware of the link between school size and efficiency. Acknowledging that findings are mixed, most researchers conclude that small schools provide greater

educational benefit than larger schools.¹⁶ Size alone, they say, is insufficient for academic success, but success is more likely in small schools, particularly for disadvantaged students.¹⁷ Most studies concur that students perform better in smaller elementary and middle schools, while research on small high schools remains largely inconclusive.¹⁸

Large schools do seem to provide greater academic benefits for middle and high income families, according to several studies.¹⁹ In general, however, researchers find that large schools and districts have more bureaucratic and administrative costs while experiencing lower attendance, lower grade point averages, lower standardized test scores, higher dropout rates, and more problems with violence, security, and drug abuse.²⁰

Research has defined an optimal size for schools and districts where both economic efficiency and improved student outcomes are achieved. The optimal size for schools ranges between 400 and 600 students,²¹ while optimal size for districts is about 6,000 students.²² When student numbers exceed optimal size, substantial increases in per pupil costs occur.²³

Today, about 24 percent of students in Texas public schools are enrolled in districts with fewer than 4,999 students (877 of 1,037 districts),²⁴ districts that fall below optimal size for efficiency. Many small school districts, particularly rural districts, typically incur high per pupil costs that largely reflect a large investment in non-instructional functions, such as transportation. Research on small rural district consolidation generally offers little evidence of cost savings because a substantial portion of non-instructional spending represents uncontrollable costs related to geographical isolation.²⁵

About 76 percent of students in Texas public schools are enrolled today in districts with more than 5,000 students (160 of 1,037 districts);²⁶ almost all of these districts are above optimal size for efficiency. Large districts typically incur high pupil costs that *are* considered controllable. Generally these costs relate to administrative/support staff that is proportionally larger than staff in smaller schools, and grows at a rate exceeding student enrollment. With controllable costs, large districts appear to have greater capacity to cut costs than small districts, but large districts do not generally initiate efficiencies, nor are they likely to gain efficiencies by consolidating and growing even larger.

Achieving School Efficiencies

Failure of schools and districts, large and small, to reduce costs through consolidation should *not* be interpreted as evidence that public schools cannot achieve efficiencies. On the contrary, considerable money can be saved and educational services can be improved by a practice perfected in the private sector—shared services. Established to reduce costs, shared services became commonplace in corporate America during the later years of the 1990's, and are used by household names such as Ford, General Electric, Hewlett Packard, Pfizer, and British Petroleum.²⁷ Almost 90 percent of shared service arrangements in private companies result in cost savings, and most savings exceed 20 percent.²⁸

Examples of Shared Services²⁹


Connecticut: Seven districts share a superintendent, a director of instruction, special education directors, and legal counsel.

Texas: Regional Service Center 17 in Lubbock provides payroll and accounting services to several small districts, saving each 50-80 percent annually.

Michigan: The city of South Lyon and school district jointly built and share a building for administrative staff.

Over the past five years, a growing number of schools and districts have replicated this practice, and established agreements to share student transportation, technology, library services, food services, curriculum development, teacher training, special education, academic programs, custodial services, and purchasing. Some schools and districts are also sharing personnel—administrators, teachers, health care professionals, and technical experts.³⁰ Shared services agreements are brokered between schools and districts, as well as between schools and a variety of public, government, and private sector entities (such as counties, municipalities, state governments, non-profit companies, and corporations).³¹ Banding together, schools and districts can create economies of scale associated with optimal size, such as those offered by large purchasing groups. Schools and districts can band together to eliminate duplication and streamline functions and services.

Conclusion

Consolidation has dramatically reduced the number of school districts in Texas and other states during the past century. Unfortunately, consolidation has not lived up to the promise of improving efficiency and educational outcomes. This promise can be realized by shared service agreements. Shared services—arrangements between organizations to consolidate functions without merging organizations—have shown remarkable success in reducing costs for private sector organizations. Adopted by a large and growing number of public schools and districts throughout the nation, shared service agreements demonstrate that increasing financial efficiency provides the opportunity to improve educational effectiveness. 

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Policy Recommendations

- If small districts are consolidated, establish cluster districts to share administrative, operational, and academic services but do not consolidate schools;
- Reward or require districts to establish agreements for shared services with other districts, municipalities, counties, and private sector organizations;
- Establish financial incentives for large districts to transfer students and pay tuition to neighboring smaller districts;
- Encourage school districts to expand reliance on technology, such as virtual classrooms, to reduce costs and improve educational quality;
- Require school districts to report shared resources as campus expenditures and establish explicit definitions to facilitate cost analyses and comparisons; and
- Establish a Return on Investment Index that allows Texans to evaluate and compare school and district measures of educational performance in relation to resources allocated, similar to the school efficiency measure established by the Florida Department of Education.³²

Endnotes

- ¹Texas Supreme Court Ruling, *West Orange-Cove Consolidated*, No. 04-1144 and No. 05-0145, November 22, 2005: 69.
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- ⁴John R. Slate and Craig H. Jones, *Effects of School Size: A Review of the Literature with Recommendations*, University of South Carolina, Aiken, SC, 2005:1.
- ⁵Paul E. Peterson and John E. Chubb, "Consolidate Districts, Not Schools," in *Reforming Education in Arkansas, Recommendations from the Koret Task Force 2005*:108.
- ⁶Ibid:112.
- ⁷Kathleen Cotton, "School Size, School Climate, and Student Performance," in *Close Up*, North West Regional Educational Laboratory, #20, May 1999.
- ⁸William D. Eggers, Lisa Snell, Roberta Wavra and Adrian T. Moore, *Driving More Money Into The Classroom: The Promise Of Shared Services*, Deloitte Research and the Reason Foundation, Los Angeles, CA, 2005: 5.
- ⁹Karen Adler and Michelle M. Martinez, "Hot-button topic may be a burning school issue," *San Antonio Express News*, December 3, 2005; and *Pocket Edition, 2004-05 Texas Public School Statistics*, Texas Education Agency, Austin, TX, 2006.
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- ¹¹Ibid.
- ¹²Ibid; and *Pocket Edition, 1991-92 Texas Public School Statistics*, Texas Education Agency, Austin, TX, 1992.
- ¹³*Effects of School Size: A Review of the Literature with Recommendations*: 6.
- ¹⁴Ibid.
- ¹⁵William Duncombe and John Yinger, *Does School Consolidation Cut Costs?* Center for Policy Research Working Papers, Maxwell School, Syracuse University, Syracuse, NY, No. 33, 2001; and William Duncombe, Jerry Miner, and John Ruggerio, *Potential Cost Savings from School District Consolidation: A Case Study of New York*, Center for Policy Research, Maxwell School, Syracuse University, Syracuse, NY, 1994.
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- ¹⁸Michael J. Hicks and Viktoriya Rusalkina, *School Consolidation and Educational Performance: An Economic Analysis of West Virginia High Schools*, Center for Business and Economic Research, Marshall University, Huntington, WV, 2004: 5.
- ¹⁹*Eric Digest*.
- ²⁰Ibid.
- ²¹*Eric Digest*.
- ²²*Driving More Money Into The Classroom: The Promise Of Shared Services*: 6 and 7.
- ²³Ibid.
- ²⁴*Pocket Edition 2004-05, Texas Public School Statistics*.
- ²⁵Richard Vedder and Joshua Hall, *Effective, Efficient, Fair: Paying for Public Education in Texas*, Texas Public Policy Foundation, Austin, TX, 2004: 23 through 26; and *Rural School Consolidation Report*, National Rural Education Association, University of Oklahoma, Norman, OK, 2005.
- ²⁶*Pocket Edition 2004-05 Texas Public School Statistics*.
- ²⁷*Driving More Money Into The Classroom: The Promise Of Shared Services*: 9.
- ²⁸Ibid: 16.
- ²⁹*Driving More Money Into The Classroom: The Promise Of Shared Services*.
- ³⁰Ibid: 9 through 17; and Sarah Hanuske, "Shared Services for Rural and Small Schools," *ERIC Digest*, ED259874, 1983, available at <http://www.ericdigests.org/pre-922/shared.htm>.
- ³¹William L. Librera, "School Districts and Shared Services: Reducing Costs and Improving Quality," *New Jersey Municipalities*, May 2005, available at http://www.njslom.org/magart0505_page_8.html; and *Driving More Money Into The Classroom: The Promise Of Shared Services*: 9 through 24.
- ³²*Welcome to the Florida Department of Education's Return on Investment/School Efficiency Measure*, Florida Department of Education, available at <http://roi.fldoe.org>.

