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## An Assessment of School District Spending and Student Achievement in Oklahoma

EXECUTIVE SUMMARY



*This study presents new knowledge about the extent to which local school district spending patterns relate to student achievement in Oklahoma. The analysis compared two groups of school districts that were demographically similar yet displayed varying degrees of academic achievement in order to determine if there was a statistically significant difference in their spending priorities during FY 2009-2014.*

## INTRODUCTION

Oklahoma has experienced growth and prosperity as well as recession and diminution during the past two decades, and the funding patterns of Oklahoma's state-aided education system followed suit. The state of Oklahoma appropriated \$4.9 billion to common education in 2000 and the school systems kept experiencing a general trend of growth in educational funding throughout the decade reaching its pinnacle at \$7 billion in 2009. Then the national economy took a substantial downturn and financial resources for public education felt the brunt of the blow. Oklahoma public schools have received consistently reduced levels of funding from the state from FY 2009 to FY2014 (the years included in the current study).

**“ Per-pupil spending has fallen by more than 23% (adjusted for inflation) since 2008, which was the deepest cut in the nation ”**  
(Leachman & Mai 2014).

From 2009 to 2014, total educational funding dropped by 200 million dollars from \$2,037,000,000 to \$ 1,837,000,000 and student enrollment increased by approximately 36,800 students from 644,777 to 681,578 (Oklahoma Policy Institute, 2014). In addition, the Oklahoma state legislature recently introduced new mandates that demand more accountability and higher standards for students and educators alike. Political leaders and school administrators have voiced concerns about this problem and have pleaded with the state for additional funds for schools to little or no avail. Oklahoma public schools face the difficulty of constricted budgets and scarcity of resources to provide educational services to a growing population of students.

Concomitantly, during this funding decline, Oklahoma public schools experienced a steady increase in student population along with a wave of stricter accountability in the form of required federal and state mandated services (Ballard, Case, & Maiden, 2014). This study accounts for funds expended for instructional and administrative activities in high achieving school districts and a comparison group of districts in order to understand the relationship spending had with achievement from FY2009-2014. During this time, total educational funding dropped by 200 million dollars from \$2,037,000,000 to \$ 1,837,000,000 and student enrollment increased by approximately 36,800 students from 644,777 to 681,578 (Oklahoma Policy Institute, 2014). In addition, the Oklahoma state legislature recently introduced new mandates that demand more accountability and higher standards

for students and educators alike. The flat or negative funding coupled with increases in enrollment and increases in required services certainly set the stage for a glaring deficit or dramatic reduction in non-essential services.

Political leaders and school administrators have voiced concerns about insufficient funding and have pleaded with the state for additional money for schools to little or no avail. Oklahoma public schools face the difficulty of constricted budgets and scarcity of resources to provide educational services to a growing population of students. Given this reality of flat or declining revenues in the state, it is crucial for policy makers and leaders to expend scarce funds as efficiently as possible.

The purpose of this study was to examine spending patterns to ascertain the extent to which expenditures among various elements of education may be associated with consistently high levels of student achievement among Oklahoma school districts. We focused this study on the relationships among school district spending in the areas of instruction and administration and student achievement.

**“ We sought to demonstrate (through analysis of empirical data) the extent to which instructional, administrative, and other expenditures predict a consistent high level of achievement of local school districts. ”**

We also were interested in determining to extent to which Oklahoma school districts with consistently high levels of achievement maintain significantly different expenditure patterns compared to other districts in the state.



**TABLE 1: COMPARISON OF INDEPENDENT VARIABLE MEANS**

		YEAR	ADM	% MIN	% FREE LUNCH	% SPED	FED REV	INSTR EXP	ADMN EXP	OTHER EXP
Not High Achieving	Mean	3.50	1543.14	0.278	0.428	0.144	\$882.41	\$4,226.08	\$772.06	\$2,388.59
	N	120	120	120	120	120	120	120	120	120
	SD	1.72	1881.45	0.118	0.151	0.038	\$499.85	\$648.39	\$368.09	\$819.51
High Achieving	Mean	3.50	6346.98	0.277	0.406	0.134	\$818.17	\$4,277.74	\$610.70	\$2,478.92
	N	120	120	120	120	120	120	120	120	120
	SD	1.72	6823.86	0.114	0.158	0.024	\$361.23	\$469.30	\$192.58	\$492.16
Total	Mean	3.50	3945.06	0.278	0.417	0.139	\$850.29	\$4,251.91	\$691.38	\$2,433.76
	N	240	240	240	240	240	240	240	240	240
	SD	1.72	5544.46	0.116	0.155	0.032	\$436.36	\$565.38	\$304.08	\$676.05

**TABLE 2: COMPARISON OF ANCILLARY DATA MEANS**

		ADM	AVG Teacher Salary	AVG Administrator Salary	% of Instruction of Total Expenditures	% of Administration of Total Expenditures	Teacher to Administrator Ratio
Not High Achieving	Mean	1543.14	\$42,395.32	\$75,764.93	57.895%	10.284%	12.402
	N	120	120	120	120	120	120
	SD	1881.46	\$1,469.19	\$6,816.25	5.311%	4.197%	3.614
High Achieving	Mean	3.50	6346.98	0.277	0.406	0.134	\$818.17
	N	120	120	120	120	120	120
	SD	1.72	6823.86	0.114	0.158	0.024	\$361.23
Total	Mean	3.50	3945.06	0.278	0.417	0.139	\$850.29
	N	240	240	240	240	240	240
	SD	1.72	5544.46	0.116	0.155	0.032	\$436.36

## SYNOPSIS OF THE FINDINGS IN CONTEXT AND RECOMMENDATIONS FOR POLICY MAKERS

A small increase in instructional spending effectively separated the top five percent of school districts academically from the K-12 population. This finding implies that providing additional funding for instruction and instructional support appears to be the appropriate action to support student achievement. Previous research supports the move toward elevating the base level of education funding as high as possible (Daniel, 2010; Hadderman, 1999).

The high achieving districts spent an average of less than half of one percent (Table 2) more for instruction as a percent of the total district expenditures than the non-high achieving group. This revelation would be noteworthy in any economy, but is more meaningful for districts facing large budget cuts. The spending changes which lower achieving districts need to make in order to match the levels of the high achieving districts found in this study appear to be affordable on any budget. The administrative expenditures examined in this study also had a significant relationship with student achievement. However, it was not a positive correlation like instructional spending. The results indicated that higher spending in administration related to poorer test performance.

To put this finding into context, the comparison of means of the ancillary data revealed that districts in the high achieving category spent an average of 8.2% of their money on administration while the districts not classified as high achieving expended an average of 10.3% of their funds on administration. This difference in percentages is indeed worthy of further inquiry considering that the average percent of administrative expenditures for the population of Oklahoma K-12 schools during the years of this study was 10.1% (refer to the Full Report for details). Administrative spending in high achieving districts was situated two percentage points below the state average.

There are two recommendations based on the results of this study that we offer to policy makers:

- 1. The Oklahoma Legislature should increase funding for education.** The reality is that funding for the districts represented in this study was so austere that spending could not be remarkably more substantial for some districts compared to others. Considering the uncertainties of revenue and funding, the evidence provided by this study supports the opinion that school districts would benefit from additional money allocated for instruction and instructional support. The amounts of money school districts receive matters and the way in which districts spend their money matters just as much if not more. Like Chaudhary (2009), Hedges, Laine, & Greenwald. (1994), and Jefferson (2005), this study contributed to the concept that additional money would have a positive association with student achievement, especially if the districts use the funds to increase instruction related inputs. The results of analysis indicated that Oklahoma has flattened out the funding for education as evidenced by the similarities of spending among districts with large variances in average daily memberships. With budget ceilings hanging so low across the state, the smallest changes in where money is spent can have a compellingly significant effect.

**2. School districts should increase instructional spending in order to maximize the probability that students will demonstrate high levels of achievement. The average instructional spending for the districts classified as high achieving was comparable to the districts not classified as high achieving. Yet the high achieving group performed considerably better on annual achievement tests and did so by spending only an additional \$51.66 more per pupil. Similar research conducted in Texas found that instructional expenditures had a positive relationship with achievement. A small difference in teacher compensation by means of a \$110 (per pupil) merit-based supplement yielded the most significant gains in student performance outcomes (Harter, 1999). Jefferson (2005) asserted that more money for schools works best when it funds incentives instead of simply raising the level of funding across the board. The use of incentive pay could be a solid investment for teachers and students across Oklahoma.**

Oklahoma ranked 49th in the United States in teacher pay while teachers in surrounding states earned approximately three thousand dollars more per year (National Center for Education Statistics, 2013; Oklahoma Watch, 2014). That low ranking for teacher pay likely contributed to the teacher shortage experienced by Oklahoma during FY 2015-2016 (National Center for Education Statistics, 2013). Given this current study's findings that instructional expenditures are associated positively with high achievement and the reality that schools are facing a teacher shortage crisis, the use of merit pay and bonuses could be a suitable move toward retaining qualified and talented teachers in Oklahoma while increasing the odds of facilitating high achievement for students.

The reality for schools in Oklahoma is that the state may not be able to guarantee additional money for education. With this in mind, it is up to the individuals in leadership across all Oklahoma school districts to adjust how they spend existing money so that students will have adequate access to educational opportunity.



